

MANUFACTURERS' RECORD

A WEEKLY REVIEW OF THE IRON, STEEL, METAL & HARDWARE TRADES.

AND A MANUFACTURING AND TEXTILE PAPER, DEVOTED TO THE UPBUILDING OF SOUTHERN MANUFACTURES AND THE DEVELOPMENT OF THE MATERIAL RESOURCES OF THE SOUTH.

VOL. 6. No. 13.
WEEKLY.

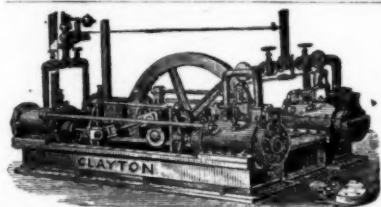
BALTIMORE, NOVEMBER 8, 1884.

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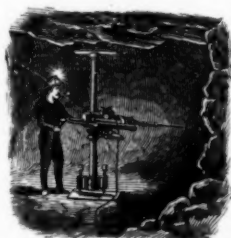
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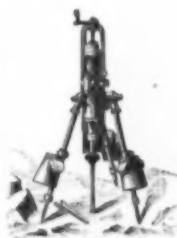
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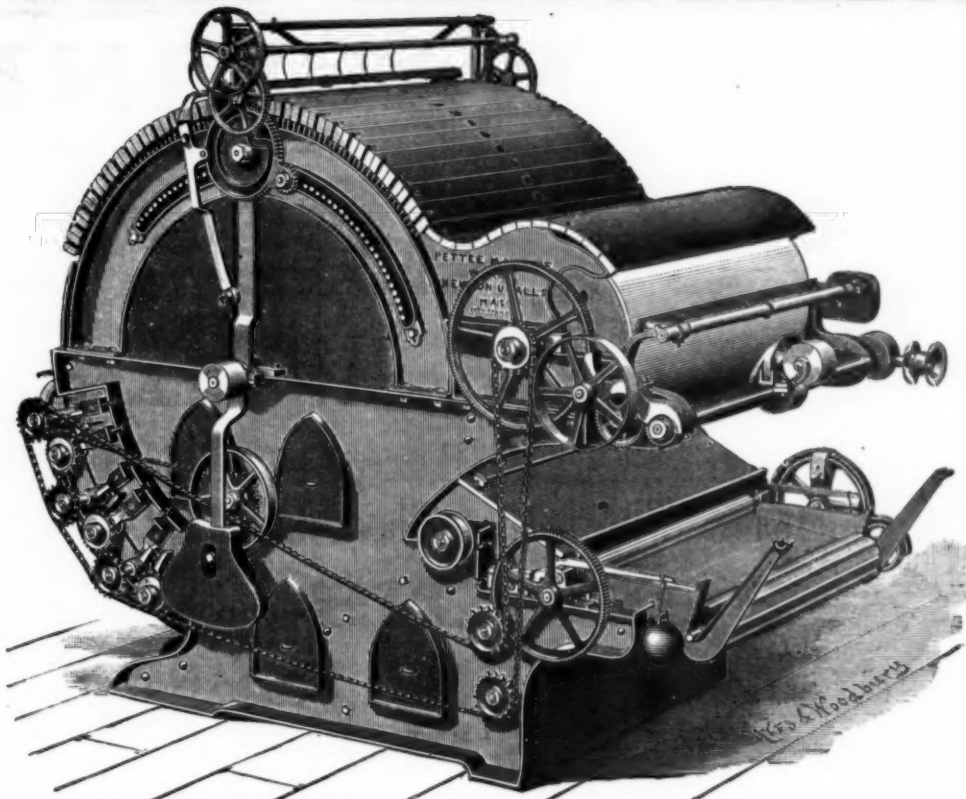
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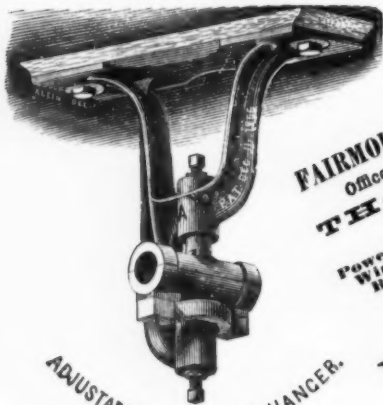
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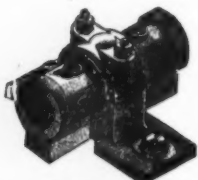
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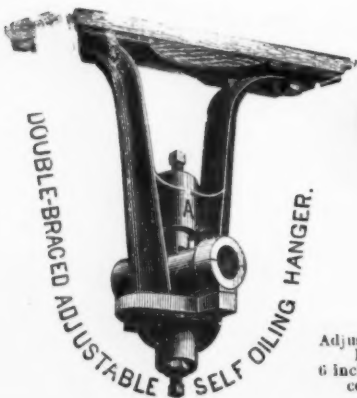
Biddeford, Maine.



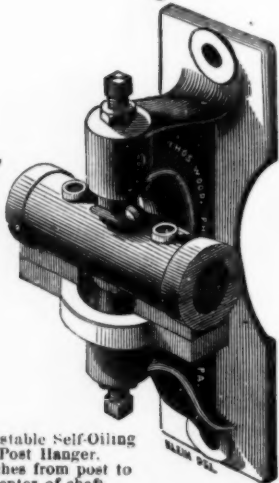
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Ball and Socket
Self-Oiling Pillow Block.



DOUBLE-BRACED ADJUSTABLE
SELF OILING HANGER.



Adjustable Self-Oiling
Post Hanger.
6 inches from post to
center of shaft.

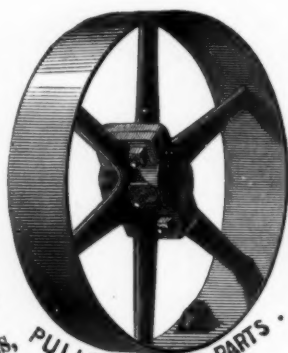
FAIRMOUNT MACHINE WORKS.
Office, 2106 Wood St., Philadelphia.
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Manufacture as Specialties

Power Looms, Patent Bobbin or Quill
Winding Machines, Plain and Presser
Winding Machines, Dyeing, Sizing,
or Spooling Machines, Reeling,
Warp Spinning, Pulling and Cal-
endering Machines.

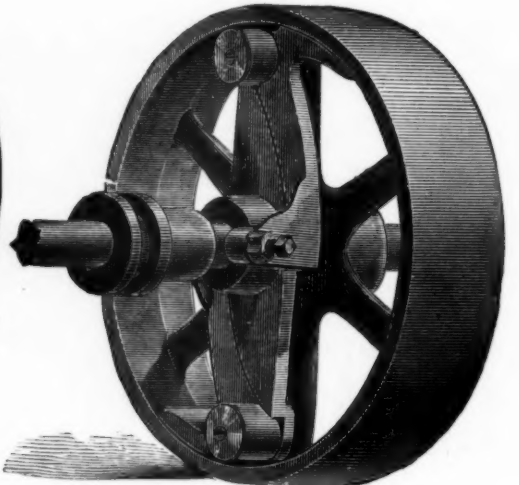
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16, 18 and 20 yards circumference,
WITH IMPROVED HECKS.

SHAFTING,
With Patent
ADJUSTABLE SELF-OILING HANGERS,
8, 10, 12, 15, 18, 20, 24 and 30 in. drop.

Also WALL, POST AND GIRDER HANGERS.
Pulleys, from 4 inches to 10 feet in diam. or.
PATENT FRICTION PULLEY.
Pulleys in two parts, any size required.
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Oil Presses for Lard, Fish and Paraffine.



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PATENT FRICTION PULLEY.

Simple, reliable and very durable.
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Special Driving,
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where possible to transmit power by belts.

PULLEYS from 4 inches to 10 feet in diameter.

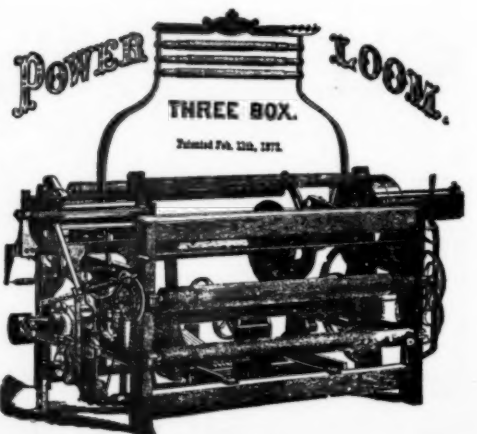
Why use old style Bearings, that require oiling
every day, when you can get Bearings at less cost
that only require oiling once in Six Months, and
thus save oil and labor enough to pay for the bear-
ings in use. Test the matter for yourselves; a
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BUILDERS AND IMPORTERS OF

COTTON MACHINERY.

ALSO, IMPORTERS OF

Wool, Worsted and Flax Machinery and English Card Clothing. Hardened and Tempered Steel Wire a Specialty.

MILL ENGINEERS.

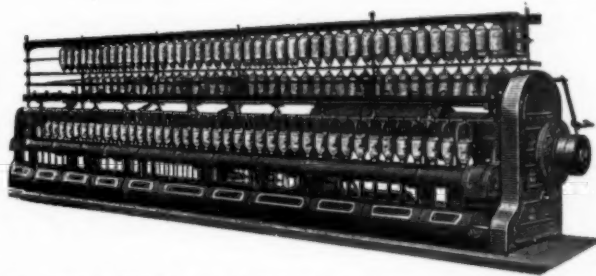
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GREAT SUCCESS OF OUR
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OF **DRAWING, AND**
62,000 **INTERMEDIATE**
ROVING SPINDLES.

The quality of Sliver produced by our Frames surpasses all others, and Waste, Single and Roller Laps are prevented, and production increased.

Correspondence Solicited.

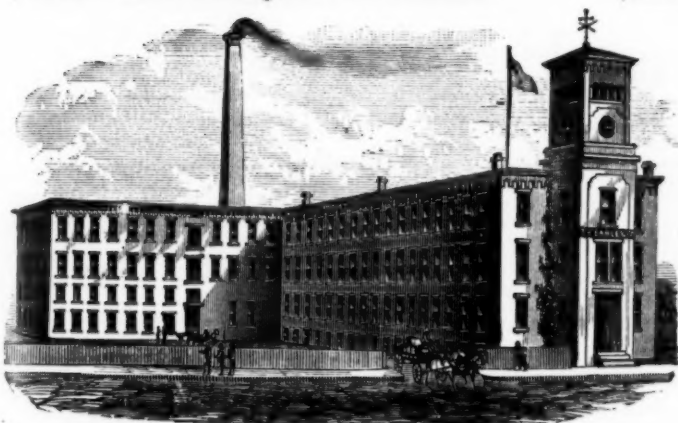
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EXHAUST OPENERS, LAPPERS, (LORD'S
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PRODUCE MORE AND MAKE LESS
WASTE THAN ANY OTHER.7,000 **SELF-STOPPING WARPERS,**
Already working with latest improvements.800 **CYLINDER SLASHERS**
Now at work in America alone.Patent and plain Spindle, Spinning and Twisting Frames,
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—Hardened and Tempered—

STEEL WIRE

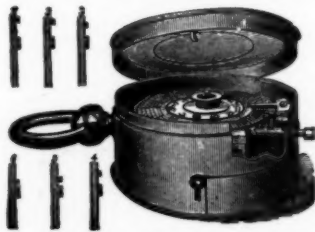
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T. K. EARLE MANUF'G COMPANY,
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Cone Pulley Fric-
tion.**Machine B.**For Wool and
Cotton Dyers, with
direct-acting
Steam Engine.**Machine C.**Runs by Belt and
Friction Cones,
suitable for water-
power.Three Sizes of Each
Kind built by**W. P. UHLINCER, Nos. 26 to 48 East Canal St., Philadelphia, Pa.****Buerk's Watchman's Time Detector.**

—IMPORTANT FOR ALL LARGE CORPORATIONS AND MANUFACTURING CONCERNS.—



Capable of controlling with the utmost accuracy the motion of a watchman or patrolman as the same reaches different stations of his beat. The instrument is complete in itself, portable, and as reliable as the best lever watch. It requires no fixture or wires communicating from room to room, as is the case with ordinary watch clocks.

The Instrument will in all Cases be Warranted Perfect and Satisfactory.

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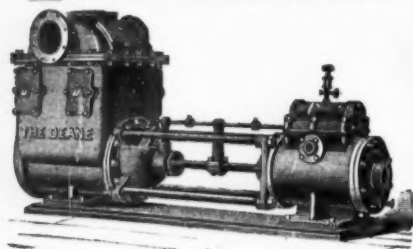
It is a splendid lubricator for Stationary Engines, Printing Presses, Paper Mills, Saw Mills, Cotton and Woolen Mills, Spindles, &c. It is the cheapest and best Oil for Machinery, Har-ness, Belts, Boots and Leather generally. Warranted a Water-Proof Leather Preservative. It is penetrating, and renders soft and pliable the hardest leather.

Fire-Proof, Barn, Fence, Bridge and Roof PaintMIXED READY
FOR USE.

Our Fire-Proof Barn, Fence, Roof and Bridge PAINT is unsurpassed for painting exposed surfaces, such as Tin, Iron or Wood Roofs, Wagons, Farm Implements, Fences, Barns, Cars, &c., &c. mixed ready for use, will not settle, will be found convenient, saving labor and time, and at the same time is handsome and durable. SOLD IN ALL-SIZED PACKAGES FROM 1 to 50 GALLONS.

Prices Mailed on
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THE DEANE STEAM PUMP CO., HOLYOKE, MASS.



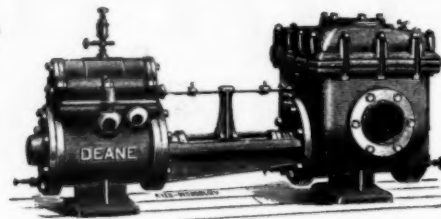
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Every variety of Pumping Machinery

VACUUM PUMPS FOR SUGAR WORK, ETC.

IRRIGATION PUMPS ARE SPECIALTIES.

Water Works Pumping Engines for Cities and Towns.

SEND FOR NEW ILLUSTRATED CATALOGUE.



RENDROCK POWDER COMP'Y,

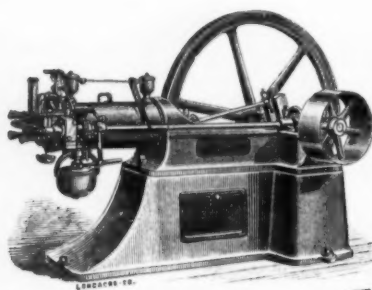
MANUFACTURER OF THE INGREDIENTS
OF THE NEW PATENT BLASTING POWDER:

RACKAROCK.

IT CONTAINS NEITHER GLYCERINE NOR
NITRO-GLYCERINE IN ANY FORM.

It Does Not Freeze. Can be shipped by express, railway or steamship lines. Neither of the two ingredients are explosive until combined, and when combined are safer than Dynamite. This explosive approximates Nitro-Glycerine in strength. Send for circulars to

RENDROCK POWDER CO., 23 Park Place, New York.



Over 14,000 in Use.

Otto Gas Engine

20 to 70 per ct. less Gas
consumption than
ANY other ENGINE.

Working Without Boiler, Steam, Coal, Ashes or Attendance.

Started instantly by a Match, it gives full power immediately. When stopped, all expense ceases.

No explosions, no fires nor cinders, no gauges, no pumps, no engineer or other attendant while running. Recommended by Insurance companies. UNSURPASSED IN EVERY RESPECT for hoisting in warehouses, printing, ventilating, running small shops, &c. Sizes: 1 to 25-horse power.

Branch Office, 214 Randolph St., Chicago.

SCHLEICHER, SCHUMM & CO., N. E. cor. 33d and Walnut Sts., Philadelphia.

ALWAYS USE THE BEST.

This Belt is stitched in seams one inch apart before putting on the outside Rubber Cover, which is made SEAMLESS and therefore cannot split. For endless Belt it is the ACME of PERFECTION, as the splice cannot separate. First cost somewhat more than the cheap Belts generally sold, but well worth the difference. Send for price-list and samples of Belts.

CHEAPEST in the END.



GIANT GUM BELTING.

REUTER & MALLORY,

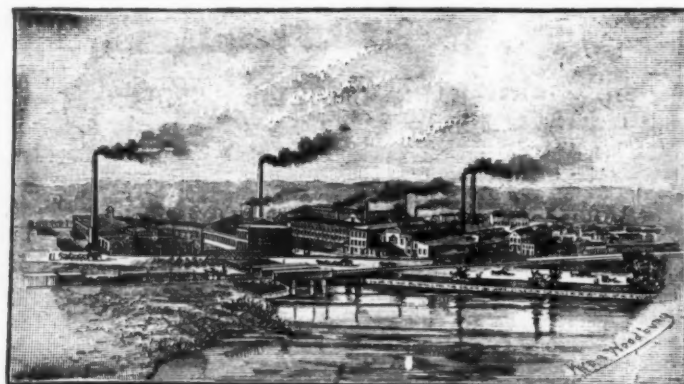
—DEALERS IN—

MANUFACTURERS' SUPPLIES,

22 Light St., BALTIMORE.

Washburn & Moen Manufacturing Co., Worcester, Mass.

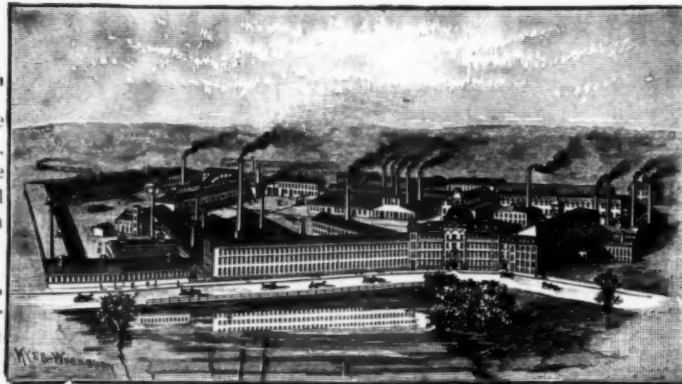
Wire Drawers, and Manufacturers of Iron and Steel Wire of Every Description



Iron and Steel Telegraph
and Telephone Wire.

Patent Steel Wire Bale
Ties, Pump Chains,
Chain Wire, Steel Wire
for Springs, Needles and
Drills, Watch Main
Springs.

Send for Price-Lists,
Circulars and Descriptive
Pamphlets on Our
Specialties.



NEW YORK WAREHOUSE:

21 Cliff Street,

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GLIDDEN PATENT STEEL BARB WIRE.

The Best Fence Material in Use.

For Sale by Special Agents and Hardware

Proof against Fire, Wind and Flood.

Dealers in all Parts of the United States.

CHICAGO WAREHOUSE:

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Chicago, Illinois.

BALTIMORE Manufacturers' Record.

Published Every Saturday by

BIGSBY & EDMONDS.

E. H. Edmonds, J. W. Bigsby, Wm. H. Edmonds.

R. H. EDMONDS, EDITOR.

—OFFICE—

71 and 73 Exchange Place, Cor. Commerce St.,

—BALTIMORE—

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J. W. BIGSBY, Resident Partner.

—SOUTHERN OFFICE, ATLANTA, GA.—

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Reading Notices 50 cents per line each insertion.

BALTIMORE, NOVEMBER 8, 1884.

CORRESPONDENCE relating to the manufacturing, mining, lumbering and all other material interests of the Southern States is solicited. We invite those interested in the development of the South to make free use of our columns. Reaching so many capitalists in all parts of the United States seeking profitable investment in the South, the MANUFACTURERS' RECORD offers an excellent chance for the people in that section to place the advantages of each locality before those likely to be interested. We will take great pleasure at all times in telling what has already been accomplished in the South, and showing up the opportunities of doing still more,—so if you desire to attract immigration or capital, or if you know of an opening for profitable investment in manufacturing, mining or kindred pursuits, write us an account of it. It will be published free of cost.

COMMENTING on a letter from Lexington, Va., showing the rapid progress of that town during the year, the editor of The Virginian, of Staunton, says:

"What is above said of Lexington is equally true of Staunton, and of nearly every town and village in Virginia. We have never known so much building of new dwellings and business houses and repairing of old ones as has been going on this year. The State is 'dressing up' as she was never 'dressed up' before. The farmers are not only putting their houses in order but their farms and farm buildings as well. The cheering prospect of thrift and plenty that meets the eye all over the Commonwealth, is one cheering to the patriotic heart."

Immigration to the South.

From present indications the immigration to the South this winter will be much greater than ever before, and we are glad to know that the Southern people are becoming more and more impressed with the importance of attracting immigration. There is a wide and profitable field open for Northern and Western farmers who desire to remove to the South, and the people of that section do well to give all possible encouragement to this class, and yet there is a limit, beyond which it is not wise to go in this direction. Time and again have we urged upon Southern people the absolute necessity of taking the most vigorous steps to increase the non-agricultural population of the South by building up the industrial interests of that section, that the danger of still further increasing the proportion of food producers to food consumers may be avoided. In a late issue the Current, of Chicago, discussing the efforts now being made to increase the tide of immigration to the West, says: "It is the duty of those who hold the fate of the great West in their hands to apply all haste to the establishment of manufactures, as that is the only possible palliative to the great ill which besets humanity,—the 'plurisy of people.' If such action is needed in the West, where manufactures are already so largely developed, how much more important is it that the South should be working even more earnestly than during the last few years towards building up her manufacturing and mining interests.

With thousands and tens of thousands of Western and Northern people, as well as many foreigners now looking towards the South as their future home, and with every indication that the New Orleans Exposition will mark the beginning of a new era in Southern affairs, and especially in immigration, it behooves the business men and the statesmen of the South to see that earnest efforts are made to so adjust and develop the varied agricultural and industrial interests of their country, that all who come may find an opening for their energy and enterprise. It will not do for the people of Florida, for instance, to base all the claims of their State for immigration upon orange growing, though this is without doubt a most profitable business, for Florida should attract a larger number of immigrants than can possibly be profitably engaged in orange culture. It must be shown that there are dozens of other industries, agricultural and manufacturing, that offer equally as great advantages as an orange grove, and, by keeping this fact before the country, the danger of every settler in Florida rushing into orange growing will be avoided, and the development of the State will be more uniform and permanent than it otherwise would be. As with Florida, so with all the other Southern States. It will be a

mistake to centre all interest in Alabama in coal mining and pig iron making, and so will it be if too much attention is given in Georgia and the Carolinas to cotton manufacturing, to the neglect of other industries. The South needs diversity in its agricultural interests, and care must be taken that there is diversity in the development of its industrial interests. Immigration is essential to the progress of the South, and should be heartily encouraged, but at the same time there ought to be well-directed steps taken to properly utilize that immigration towards a healthy and permanent building up not of any one or two interests only, but of the whole South, and all its vast and varied industries.

A New Dodge.

Within the last few days we have seen many very curious letters and circulars, some of which have been sent us by mail and others brought to us by our advertisers. We have also received more than one call from parties who are advertising, who have recently had a very curious experience in receiving inquiries for their catalogues or special circular, from a wide range of country, these calls immediately following each other within a very few days and from a wide region of country. The secret of this has now fully leaked out. Letters are written, printed slips, postal cards and other means of instigating inquiries emanate from the office of certain papers, who for the present may remain nameless, to subscribers, advertisers and to the recipients of sample copies, asking them to send to certain parties for their catalogues, circulars, or price lists. This of course is all legitimate, but it is a dishonest move in its inception. The parties in question, the managers of the papers from whom these bogus inquiries emanate, are anxious about this time to make a good return of their circulation, and to stimulate inquiries in order to secure advertisements for the next year.—*Manufacturers' Gazette*.

[Something of this kind was lately brought to our attention. Two Baltimore houses advertised in a trade paper and shortly thereafter one of them received a letter from a Southern city in answer to his advertisement, asking for an estimate on the building of an extensive mill. So well pleased was he at the prospect of a big job that he went around the corner to tell his friend, who also advertised in the same paper, of his good fortune. This friend was likewise in excellent spirits, for he too had received a letter referring to his advertisement and asking for the price of a big engine. Comparing letters they found both to be from the same party and worded almost exactly alike. That aroused a little suspicion, and so as one of them was going to the city whence the letters came in a day or two, he concluded to investigate. He did so and found that both letters were written by a boy at the request of the publisher of the paper. Hereafter the advertisements of those firms will not appear in that paper.]

THE big machine shops at Roanoke, Va., known as the Roanoke Machine Works, are to increase their force. It is expected that these shops will employ 1,000 men when general business becomes active again.

UNITED States Consul Carroll at Palermo writes to the State Department that he is in constant receipt of circulars and catalogues, printed in English, sent out by American firms, who request that they be distributed in that city, and he very justly calls attention to the waste of time and money in sending English printed matter to people who cannot read it. If American manufacturers are unwilling to bear the expense of introducing their goods into foreign markets in a thorough business manner, it is folly for them to expect any foreign trade. A manufacturer might spend thousands of dollars in distributing an English printed catalogue among people who cannot read that language, and it seems that some of our manufacturers are doing just that thing, and yet he probably would not receive a single inquiry for his goods. It is a waste of money for our manufacturers to seek foreign trade unless they do it systematically, and with a determination not to be discouraged if they do not at once succeed. Spasmodic attempts to push their goods in a new country in which they are not known, failure to cater to the tastes of the customers that they seek, and bad packing which causes much complaint against American goods, will do our manufacturers more harm than good and simply result in financial losses.

THE Southern papers are very wisely urging their readers to sow wheat and oats. If Southern farmers would raise their own foodstuffs and not depend upon the West for their bread and meat, they would soon find their financial condition vastly improved. This fact cannot be too strongly impressed upon every farmer in the South, and the Southern press is doing its section a great service when it persistently advocates diversified farming. There is independence and wealth in diversified agricultural interests that the all-cotton planter knows nothing of. A few planters here and there may grow rich on the all-cotton system, but history teaches that no people as a whole can be permanently prosperous where all interest is centered in any one crop, whether that crop be wheat, corn, tobacco or cotton.

THE American, of Cartersville, Ga., has published an excellent 8 page Trade Review, showing the advantages for mercantile and for manufacturing business possessed by that town. The American also devotes much space to a review of the resources of Bartow County in which Cartersville is located.

As it is impossible for President Arthur and the heads of executive departments at Washington, to be in New Orleans on December 1st, the managers of the New Orleans Exposition have decided to postpone the opening day to Tuesday, December 16th, as it is particularly desired that the President shall attend the opening ceremonies.

Pig Iron Production in the South.

That the South possesses very superior advantages for making pig iron is everywhere admitted, and yet we are not of that number who predict that all Northern furnaces will be driven out of existence by Southern iron makers. Moreover, such a condition of affairs is not to be desired, even by the warmest advocates of Southern progress. This country is too big for any one section to monopolize any great industry, and while the South will make rapid progress in pig iron production, other sections will continue in the same business. Many Northern furnaces now out of blast will never go in again, and doubtless some that are now at work will after a while give up the struggle, and cease to make pig iron.—These failures are to a considerable extent due to unfavorable locations, or lack of the most improved labor and money saving machinery, but there are other furnaces at the North that are so well situated and so ably managed that they can produce pig iron at a profit even at the present low prices. These furnaces will continue in successful operation.

The South's advantages are very great, and are sure to be improved, so that we may confidently predict a steady increase in the production of pig iron in that section, and the proportion of iron produced in the South as, compared with the total production in the country will show from year to year a steady increase. The Southern States are to be the centre of great industrial activity for many years to come; mills, factories, foundries, and manufacturing enterprises of almost every kind will wonderfully increase in number and capacity in the South, while many thousand miles of railroad will be built. All these things will require iron, and to supply that iron the South will need more furnaces than it now has. The MANUFACTURERS' RECORD has persistently advocated the building up of more diversified industries in the South that use pig iron as a raw material, and this is now being done so rapidly that in a few years much of the pig iron produced in the South will be manufactured there into agricultural implements, stoves, &c. At present Southern furnaces, to a very large extent, labor under the great disadvantage of being compelled to find a market elsewhere for their products, often at an expense for freight of from \$2 to \$5, or \$6 a ton. Despite this heavy tax which Northern furnaces, situated near the consuming markets do not labor under, the principal Southern furnaces with very few exceptions have remained in blast (or gone out only for a short time for repairs) during the long depression in the iron trade. With the growth of diversified manufactures in the South there will be an increased home demand for Southern pig iron, and Southern furnaces will be relieved in part of the heavy freight expenses under which they now labor.

With a view of showing the increase in the productive capacity of Southern furnaces during the last few years, we have compiled from the directory of the Iron and Steel Works of the United States the following statistics. It should be understood that the total capacity of the furnaces in the South, or in the whole country as given in the directory, is not intended to mean the amount of iron actually made. These figures represent the total capacity of the furnaces, provided they were all continuously at work, but this, of course never occurs. The total capacity of all the furnaces in the South whether in or out of blast on July 25, 1882, and Sept. 1, 1884, was as follows:

	1882.	1884.	Increase.
	Tons.	Tons.	Tons.
Maryland.....	86,500	87,100	600
Virginia.....	146,500	316,600	170,100
West Virginia.....	125,500	154,500	29,000
North Carolina.....	11,200	17,800	6,600
Georgia.....	43,600	54,600	11,000
Alabama.....	257,500	363,300	105,800
Texas.....	183,000	368,500	185,500
Tennessee.....	77,200	92,400	15,200
Kentucky.....			
Total.....	931,000	1,461,800	531,800

As shown by these figures the largest increase during the two years was made by Tennessee, the gain in that State being 185,500 tons; Virginia follows second with a gain of 170,100 tons, and Alabama third with 106,800 tons. While Tennessee made the largest aggregate gain, Virginia scored a heavier percentage of increase, showing a gain of 116 per cent. against 101 per cent. by Tennessee. The percentage of gain for the whole South during the two years under review was 57 per cent., against a little over 10 per cent. increase in all other parts of the country, the Southern States showing an advance in productive capacity from 931,000 tons in 1882 to 1,461,800 tons in 1884, an increase of 531,800 tons, while in the rest of the country the gain was from 7,069,000 tons to 7,838,200 tons or 769,200 tons. Among the more important furnaces in the South that have been completed since 1882 are the Crozer at Roanoke, Va., capacity 35,000 tons a year; Gem at Milnes, Va., capacity 30,000 tons; Princess at Wilton, Va., 10,000 tons; Victoria at Goshen, Va., 50,000 tons; Alice No. 2 at Birmingham, Ala., 40,000; Pratt, at Birmingham, 15,000 tons; Woodward, Wheeling, Ala., 30,000, tons; Bettie, Charleston, W. Va., 10,000 tons; Citico, Chattanooga, Tenn., 30,000, and two furnaces now under construction at Dayton, Tenn., by an English company, that will have an aggregate capacity of 100,000 tons. A large number of furnaces have been projected in different parts of the South and there are probably at least a dozen companies that as soon as the present depression in the iron trade has passed away will at once commence the erection of large furnaces.—The following is a list of all the furnaces in the South:

LOCATION.	MARYLAND.	CAPACITY,
ANTHRACITE.	OWNERS.	TONS.
Ashland.....	Ashland Iron Co.....	25,000
Catoctin Furnaces.....	J. B. Kunkel.....	6,000
Baltimore.....	Baltimore Iron Co.....	6,000
BITUMINOUS.		
Sharpsburg.....	P. A. Ahl & Bro.....	
CHARCOAL.		
Catoctin Furnaces.....	J. B. Kunkel.....	5,000
Baltimore.....	Baltimore Iron Co.....	4,500
Baltimore.....	D. M. Reese & Sons.....	4,000
Green Spring Furnace.....	J. B. Haines & Co.....	1,200
Harford Furnace.....	H. W. Archer and others.....	For sale
Baltimore.....	D. M. Reese & Sons.....	5,000
Rossville.....	Furstenburg & Adler.....	2,600
Baltimore.....	H. W. Elliott & Son.....	12,000
Muirkirk.....	Charles E. Coffin.....	4,200
Principin.....	Geo. P. Whitaker.....	
Baltimore.....	Stickney Iron Co. (2 furnaces).....	11,000
COKE.		
VIRGINIA.		
Buffalo Gap.....	Virginia Iron and Steel Co.....	9,000
Clifton Forge.....	Hileman, Waring & Co.....	
Roanoke.....	Crozer Steel and Iron Co.....	35,000
Milnes.....	Shenandoah Iron Co.....	30,000
Longdale.....	Longdale Iron Co.....	29,000
Low Moor.....	Low Moor Iron Co., of Va.....	40,000
Lynchburg.....	Lynchburg Iron Co.....	14,000
Henrico County.....	Phila. & Reading Coal and Iron Co.....	9,000
Wilton.....	D. S. Cook.....	19,000
Goshen.....	Iron and Steel Works Ass'n, of Va.....	50,000
CHARCOAL.		
Snowden.....	S. F. Jordan's estate.....	2,500
Reed Island.....	C. B. Squier.....	2,000
McTeer.....	Robert Sayers.....	3,500
Graham's Forge.....	Graham & Robinson.....	
Columbia Furnace.....	Columbia—Liberty Iron Co.,	
Liberty Furnace.....	Columbia—Liberty Iron Co.,	32,000
Crockett Depot.....	Crockett & Co.....	
Crockett Depot.....	Crockett & Co.....	
Crockett Depot.....	Crockett & Co.....	7,500
McTeer.....	Crockett & Co.....	
Glenwood.....	F. T. Anderson.....	2,000
Craig's Creek.....	Tredegar Co.....	1,600
Crockett Depot.....	Slaughter, Dunn & Co.....	4,500
Ivanhoe Furnace.....	New River Mineral Co.....	8,000
Red Bluff.....	Lobdell Car Wheel Co.,	
Max Meadows.....	Lobdell Car Wheel Co.,	8,500
White Rock Furnace.....	Lobdell Car Wheel Co.,	
Water Lick.....	Knauer & Morret.....	3,500
Milnes.....	Shenandoah Iron Co.....	3,000
Alexandria.....	Powells Fort Mining Co.....	
Weyer's Cave.....	Abbott Iron Co.....	
Foster's Falls.....	Foster's Falls Iron and Manfg. Co.....	2,000
Gosheu.....	Panther Gap Furnace.....	
Radford Furnace.....	Radford Iron Co.....	
Reed Island.....	Reed Island Iron Co.....	2,000
Salisbury Furnace.....	Salisbury Iron Manufacturing Co.....	4,000
Newport.....	Sinking Creek Iron Works.....	
Van Buren Furnace.....	Frank King.....	2,500
Waynesboro.....	Virginia Furnace.....	
Graham's Forge.....	Crockett, Oglesby & Co.....	1,500
COKE.		
WEST VIRGINIA.		
Wheeling.....	Belmont Nail Co.....	18,000
Charleston.....	Black Hand Iron and Coal Co.....	10,000
Raccoon.....	F. Nemegyer.....	10,000
Quinnimont.....	Quinnimont Coal and Iron Co.....	12,000
Wheeling.....	Riverside Iron Works.....	40,000
Wheeling.....	Wheeling Iron and Nail Co.....	30,000
Irontown.....	Keyser Brothers & Co.....	6,000
CHARCOAL.		
Bloomery.....	Bloomery Furnace Co.....	3,000
Capon Iron Works.....	Keller & Co.....	1,500
Strange Creek.....	Elk River Iron Co.....	5,000
Gladeville.....	Gladeville Furnace.....	3,000
Coal Valley.....	Kanawha Iron Co.....	14,000
Falls of Muddy Creek.....	Virginia Furnace.....	2,000

CHARCOAL.		NORTH CAROLINA.	
Lockville.....	American Iron and Steel Co. (2).....	7,000	
Cranberry.....	Cranberry Iron and Coal Co.....	6,000	
Lincolnton.....	J. W. Derr.....		
Ore Hill.....	Ore Hill Furnace.....	3,600	
Iron Station.....	Rehoboth Furnace.....	1,200	
COKE.		GEORGIA.	
Rising Fawn.....	Walker Iron and Coal Co.....	30,000	
CHARCOAL.		ALABAMA.	
Cedartown.....	Cherokee Iron Co.....	11,000	
Cartersville.....	W. P. Ward.....	3,000	
Etna.....	Etna Furnace Co.....	3,000	
Hermitage.....	Hermitage Furnace.....	5,000	
Stump Creek.....	Thomas & Brown.....	3,600	
COKE.		ALABAMA.	
Birmingham.....	Alice Furnace Co. (2 furnaces).....	60,000	
Brierfield.....	Brierfield Coal and Iron Co.....	4,500	
Woodstock.....	Edwards Iron Co.....	11,000	
Oxmoor.....	Eureka Company.....	30,000	
Birmingham.....	Mary Pratt Furnace Co.....	15,000	
Birmingham.....	Sloss Furnace Co. (2 furnaces).....	60,000	
Wheeling.....	Woodward Iron Co.....	30,000	
CHARCOAL.		TEXAS.	
Jenifer.....	Clifton Iron Co.....	7,500	
Irona.....	Clifton Iron Co.....	14,000	
Gadsden.....	Coosa Furnace Co.....	7,000	
Cedar Bluff.....	Hugh McCulloh.....		
Rock Run.....	Bass Furnace Co.....	7,000	
Round Mountain.....	Round Mountain Iron Works.....	2,500	
Shelby Iron Works.....	Shelby Iron Co. (2 furnaces).....	20,000	
Rock Run.....	Stonewall Iron Works.....	6,000	
Tecumseh.....	Tecumseh Iron Co.....	14,000	
Aniston.....	Woodstock Iron Co. (2 furnaces).....	20,000	
CHARCOAL.		TENNESSEE.	
Rusk.....	Comer & Fairris.....	4,000	
Marshall.....	Marshall Car Wheel and Foundry Co.....	3,000	
BITUMINOUS OR COKE.		TENNESSEE.	
Chattanooga.....	Chattanooga Iron Co.....	16,500	
Chattanooga.....	Citico Furnace Co.....	30,000	
Dayton.....	Dayton Coal & Iron Co. (2 furnaces).....	100,000	
Jenks.....	Oakdale Furnace.....	21,000	
Rockwood.....	Roane Iron Co.....	40,000	
Cowan.....	Tennessee Coal, Iron and R. R. Co.....	30,000	
South Pittsburgh.....	Tenn. Coal, Iron & R. R. Co. (2 fur.).....	80,000	
CHARCOAL.		KENTUCKY.	
Taylorsville.....	R. R. Butler.....	2,000	
Carter's Furnace.....	Knoxville Car Wheel Co. (2 furnaces).....	6,000	
Union Depot.....	Jenkins, Hodge & Co.....		
Stewart County.....	Cumberland Iron Works.....	5,000	
Cumberland Furnace.....	Dronillard Iron Co.....	4,000	
Stribling.....	LaGrange Iron Co.....	4,000	
Chief P. O.....	Napier Iron Co.....	4,000	
Nashville.....	Warner Iron Co.....	12,000	
BITUMINOUS OR COKE.		KENTUCKY.	
Ashland.....	Ashland Coal and Iron Co.....	20,000	
Newport.....	Swift's Iron and Steel Works.....	17,000	
Ashland.....	Norton Iron Works.....	20,000	
CHARCOAL.		KENTUCKY.	
Ashland.....	Means, Russell & Means.....	3,000	
Grayson.....	Charlotte Furnace.....	4,000	
Hunnewell.....	Eastern Kentucky Railway Co.....	6,000	
Mount Savage.....	Joseph S. Woolfolk.....	4,000	
Quincy.....	Pine Grove Furnace.....	700	
Greenup.....	Raccoon Mining and Manfg. Co.....	4,000	
Olympian Springs.....	Buth Furnace.....		
Furnace P. O.....	Central Ky. Land, Mining, Manfg. and Transportation Co.....	3,000	
Furnace P. O.....	Central Ky. Land, Mining, Manfg. and Transportation Co. (2 furnaces).....		
Union Hall.....	Joel McKinney.....	3,000	
Hematite P. O.....	J. H. Hillman.....	5,700	
Laura Furnace P. O.....	Laura Furnace.....		
Trigg Furnace P. O.....	Trigg Furnace.....	6,000	
*Building.			

A Typical English Mill Man.

Mr. John Butterworth, an English expert of some pretensions, was present, and being called upon as an invited guest entered into a wholesale denunciation of American machinery. His opinions having excited some controversy, he replied: "As I am an Englishman and intend to ever remain so, I hope you will continue as you are. It will be so much the better for us." Subsequently, under the skillful cross-questioning of the President and others, he revealed the fact that many American ideas are being adopted in England after all. He asserted at first that the only American card he had ever seen in England was a Foss & Pevey sent over there as a curiosity; but upon being pressed with the question of whether cards of American pattern had not been built in England, and whether the Wellman stripper had not been built there to such an extent as to have yielded Mr. Wellman a considerable revenue, he was forced to admit that they had. He also stated that the cost of labor in preparing and spinning a pound of No. 32 yarn was 0.9d., or about 1.8 cents, and Mr. Parker of the Pacific Mills and others showed that the cost of the same work was no more than that in many mills in this country, although so much higher wages were paid here.

It was generally admitted, however, that the English manufacturers make better yarn from poor cotton than is made in this country. Mr. Butterworth stated that 90 revolving top-flat cards in an English mill were tended by five men and a boy and produced 720 pounds per card per week.

IT WAS THE CONSENSUS

of the meeting—Mr. Butterworth excepted—that American spinning and weaving machinery was far superior to English. Mr. Garced stated that No. 40 yarn is being sold in England at 18½ cents a pound, and Mr. Redfern added that No. 32 yarn is produced there at 16½ cents. The question was asked amid much laughter whether the English operatives enjoyed producing the yarn at that price. The association and Mr. Butterworth had some amusing talk over the assertion that this was a great country, and the inhabitants were aware of the fact to an extent painful to visitors. But further skillful questioning showed that a similar peculiarity is not unknown in England. Mr. Butterworth said that American manufacturers were so anxious to have everything "American" that they couldn't even adopt a piece of English machinery without altering it over so as to call it "American." But he had previously admitted that the English mills had manifested the same disposition in their use of the American card, and it was further shown that English ideas, in regard to spinning machinery, had been vastly improved in this country.—From Boston Commercial Bulletin's report of the Cotton Manufacturers' meeting.

Notes From Dixie.

BY CHAS. H. WELLS.

Mr. R. A. Williams, of the Memphis and Little Rock Railroad, writes me that the record of Memphis, Tenn., for the present year surpasses any previous one since the war. "Especially is this true," he says, "of its manufacturing resources, embracing every class and variety. In the past year we have had two new railroads coming in, opening up the natural resources of Arkansas, Louisiana and Mississippi, while at least half a dozen more are now projected and under contract. We owe a great deal to Northern energy and Northern capital, and it will always receive a warm and hearty welcome from the 'City on the Bluff.'"

This letter from Memphis is gratifying in the extreme. A few years ago this handsome city, now one of the cleanest and most beautiful of all the Southern marts of trade, was synonymous with yellow fever, "plague, pestilence and famine," *et cetera*. The system of drainage recently introduced has made the city a model of cleanliness and sweetness. From the Peabody House in either direction for a score of blocks everything is as neat as a pin, and reminds one of Washington, so clean are the streets and pavements. Mr. Williams tells me that the road which he represents has now a through car service by way of Memphis, from Atlanta to Little Rock, which is a great accommodation for emigrants, tourists and commercial men who make long journeys.

All the Southern railroads seem to have become infused with new life since the first of October. Major O'Brien, of the East Tennessee, Virginia and Georgia Air Line, tells me that his road now has a feature possessed by no other railroad in Dixie,—five quick passenger trains each way daily. This is quite like some of the great Northern trunk lines and would seem to indicate that the E. T. V. and G. is making a great stride forward.

Few people have any idea of the amount of fine timber now standing in North Carolina. An agent of the Estey Organ Company, of Brattleboro, Vermont, has been in correspondence with several parties in the Western portion of the "Old North State," trying to buy half a million feet of the black walnut that is so much in demand for cabinet work now-a-days. The owners of the logs were willing to sell the unsawed timber at \$60 a thousand feet delivered, a very moderate price. A vast quantity of the North Carolina walnut is sent to Philadelphia and exported to France for use in furniture and fine cabinet work in Paris. It is shipped to Havre and sold there at a profit of sixteen per cent. on the gross amount invested.

Traveling men all through the South complain that politics have been so interesting as to prevent the sale of goods. When there is a political speaking all the tradesmen close their shops, and the traveling man meets with but little encouragement. One agent for a large hardware house in Baltimore says he has lost the sale of at least \$30,000 of goods through the political excitement now prevailing.

Some of the newspapers ought to preach against the growing custom in the South of accumulating large sums of money and putting it away in a safe. The other day while at Lexington, N. C., I had occasion to transact some business with a gentleman of reputed wealth. He opened an old, primitive safe standing in one corner of his bed-

room and brought out over \$10,000 in gold and notes. There were several bags of \$20 gold pieces, a bundle of \$5 and \$10 bills that would have filled a small pillow-case, besides any quantity of bank notes of larger denominations. It is this gentleman's boast that he always keeps from \$10,000 to \$20,000 in currency on hand, although his expenses for living are not above a thousand a year. Some day a cracksmen will come along and blow open that old safe and put the money in circulation again.

Mr. J. C. Fitzgerald, of Greenville, S. C., a photographer of considerable reputation in the Palmetto State, has invented a machine, worked by compressed air, for instantaneous photography, whereby a picture can be taken in less than one-fifth of a second. Those who, that future generations may gaze upon their physiognomy, have sat for half an hour with a cold iron brace jammed in the back of the neck and with various other mechanical devices applied to other portions of the anatomy in order to secure a graceful position, will appreciate the advantages of Mr. Fitzgerald's invention. It is to be patented and will doubtless yield a handsome return.

Mr. C. F. Demmer, of New Haven, Conn., with the Marlin Fire Arms Company, writes me that he has 10,000 acres of fine pine timber land in Emanuel County, Georgia, that he is anxious to dispose of. He will sell the timber alone, if desired, and retain the land, or will sell both. Any communications to Mr. Demmer should be addressed to care of box 229, New Haven. The land he offers to sell is in a good lumber region, and if the prices are reasonable, would be a fine investment for an energetic man with some capital and a good deal of pluck.

George B. Douglas, Esq., managing editor of the Buffalo, N. Y., *Lumber World*,—the standard journal among lumbermen,—will spend a month in the South, visiting all the principal points of interest in Dixie. This visit will probably result in the investment of considerable Northern and Western capital, should Mr. Douglas happen to be pleased with the lumber country he contemplates visiting,—and it is safe to say he will be delighted. The *Lumber World* has for some months past devoted several of its columns to full descriptions of the timber lands in Georgia and the Carolinas, and has been the means of drawing to this part of the country a good deal of money.

The gold mining company, recently formed in New York by Cyrus W. Field and other wealthy capitalists, who contemplated working up the various mines in the vicinity of Spartanburg, S. C. and Tryon City, N. C., seems to have fallen into the shade within the last few weeks. Mr. Dumont, the expert who was sent to examine the mines, was favorably impressed, but as yet the moneyed men seem to have formed no plans of action. Some of the gold ore from Tryon City was exhibited at the Raleigh exposition by Mr. Armstrong, a practical miner, and attracted considerable attention. The metal is found in quartz and often in small nuggets in the bed of the mountain streams. Some of the chunks of pure gold displayed weighed three or four ounces, and were much admired by the mineral hunters and by the ladies.

DRIFTWOOD.

There are several good openings for banks in the South—at Lexington, N. C.; at Laurens, S. C.; at Statesville, N. C.; and at Greenwood, S. C.—Money loaned on first class real estate brings on an average of ten per cent. a year in the Piedmont region of South Carolina.—A firm of Richmond druggists sold \$130,000 worth of quinine in

the Southern States last year, and during the present season the increase over that sum will be thirteen per cent.—A newspaper genius in Asheville, N. C., has started a newspaper called the *Extricator*; translated it means "to hit with a brick." The word is of Irish descent.—Dust six inches deep has had the effect of keeping people away from the State Fair at Charlotte, N. C.—The project to build a big hotel that will cost \$500,000 at Asheville, N. C., is being revived.—Parties who desire to communicate with the writer of the "Dixie Notes" should address box 160, Greenville, S. C., thus obviating delays and ridding the publishers of this paper of the trouble of re-mailing and forwarding letters.—Game of all kinds is so plentiful in Catawba County, N. C., that sportsmen count ten dozen birds a poor afternoon's work.—The new "Kimball House," in Atlanta, is rapidly approaching completion. When finished, it will be one of the finest hotel buildings in the States.

Tin Plate Guaranty Again.

The Reporter lately spoke at some length of the resolution of Merchant & Co., of Philadelphia, to hereafter "guarantee" their tin plates to all buyers. We are glad to know that this change to a better plan from the present generally unsatisfactory one has met with a prompt financial reward. The London Ironmonger, of Oct. 14th, through its American correspondent, speaks of the same matter, and specially commends the action of Merchant & Co. in taking a lead in what it asserts will inevitably soon become the rule with tin plate dealers in America. The need of a reform in the matter of brands has long been admitted. The whole conventional nomenclature of the tin plate trade has gradually fallen into disrepute. Consumers long ago discovered that very few brands can be regarded as possessing specific value as quality indication, and that grade quotations are still more misleading, encouraging all kinds of trick and fraud on the part of unprincipled dealers.

The American concludes in the Ironmonger, as follows: "The effect of the guarantees (given by Merchant & Co.) upon their trade has been very remarkable. The sales have been immense, especially of the 'Camarat,' which is a strictly first-class roofing plate, and they are very much more than satisfied with the result of their experiment so hesitatingly ventured in response to the clearly expressed demand of the trade. Other houses are making preparations to follow their example as rapidly as possible, and the competition at present is in quality of the fine plates offered, each house in the trade making its leading specialty of one or more plates of proved excellence in which consumers can feel entire confidence.

The trouble with the trade in this country is chiefly due to the difficulty which perfectly responsible houses have in making direct connections with manufacturers. These makers are so entirely under the control of the Liverpool factors that they are unable or unwilling to enter into direct relations with importers here, and consequently importers have very little chance to control the quality of the supplies they purchase, and are entirely dependent upon such knowledge as they gain from experience with different brands. This is a most unsatisfactory condition of affairs, as it renders it impossible for them to know much about their stock or to be able to make any representations concerning it in which dealers can feel confidence. The lowering of the standard of a brand can only come to their knowledge through the complaints of consumers, and the only recourse which the importer has to protect his reputation is not to order any more of that kind of plate. He is, however, quite liable to be victimized on the next shipment, and so it goes on year after year. The fortunate position of Merchant & Co. grows out of the fact that they have been able to make direct

relations with Gilbertson, and are advised of everything concerning the quality of the plates they receive from that source."—Stove and Hardware Reporter.

The New Orleans Exposition.

In a description of the work that is now being done on the Exposition buildings, the New Orleans Times-Democrat says of the machinery department that it has "a motive power of twenty batteries of steam boilers, driving twenty-four steam engines, aggregating 5,200 horse-power. The boilers are now nearly all in position, and some batteries are now ready to get up steam. The foundations of the principal engines are completed, the engines have been shipped and are arriving daily. The largest of these, (and the largest engine ever erected in Louisiana) is a Corliss engine of 650 horse-power, from the works of the Harris Corliss Company, Providence, R. I.

The work to be done by these twenty-four engines comprises driving 11,000 feet of shating, furnishing power to exhibitors, and upward of forty dynamos for the Edison, Brush and Louisiana Electric Light Companies, which will require about 2,000 horse-power.

THE WATER SUPPLY

consists of two compound duplex Worthington pumps, having a capacity of 4,000,000 gallons in twenty-four hours. They are located in a special pumphouse at the southwest corner of the park, next to the river. The entire plant is complete, and steam was raised there yesterday.

This plant distributes the water through upward of five miles of pipe, which is all laid and ready to receive the water, which will be turned into them on Sunday next. This system of pipes furnishes water to every building in the park, and also supplies the numerous fountains in the grounds. The main building alone contains over 10,000 feet of water pipe, with fifty-six fire hydrants so distributed that five streams of water can be turned on to any point in the main building at fifteen seconds notice. The government building is equally well protected, besides which there are large pumping engines arranged to throw water at call, both on the exposition buildings and many of those outside the grounds.

The shafting consists of cold rolled shafting mounted in pillow blocks and hangers, all with universal joints. The lines of shafts are coupled every 200 feet by universal couplings. The shafting is all completed, its foundations all lined and leveled, and is being put up at the rate of 1,500 feet a week. A large portion is already erected, and the balance will be in place by Dec. 1.

A large saving has been effected by the Board of Managers of the Exposition in not purchasing the steam-power for driving the machinery; the Centennial Exposition paid \$150,000 for this purpose, whereas the power has all been secured free of cost for this Exposition.

THE St. Louis *Age of Steel* claims that there is altogether too much red tape about the installation department of the New Orleans Exposition, and the charge seems to be well sustained by the publication of letters that passed between the chief of that department and the Simmons Hardware Co., of St. Louis. If the exposition is to be a success, it will be necessary to get rid of all useless red tape.

A Tennessee editor has suddenly become rich by a sale of timber. A. S. Horsley, an editor of Columbia, Tenn., and W. P. Ingram of the same city, have sold to an Ohio man, 7,360 walnut trees in North Carolina and Georgia for \$122,667, an average of \$16.66½ per tree.

The Gardner Spring Governor.

We present on this page an engraving representing the steam engine governor, as recently improved, made by the Gardner Governor Co., Quincy Ill. In this governor two balls provide the centrifugal force, the centripetal or resisting force being two flat taper springs, one end of each of which is firmly attached to one of the balls, and the other end to a sleeve, which is rotated in the usual manner.

The balls are also connected by means of links to an upper sleeve which revolves with them, and is also free to move in a direction either up or down. An inspection of the engravings will make it plain that as the balls move—outwardly, for instance—their paths will be in arcs, with radius determined by the springs, and that as the links connecting the balls and sleeves are of a length materially less than the radius represented by the springs, the result will be to move the sleeve upwards. Similarly, a reverse, or inward, motion of the balls will move the sleeve downward. This sleeve, being con-

necting with the valve stem, correspondingly moves the valve.

A sawyer's lever is attached, and a reliable automatic safety stop, when desired.

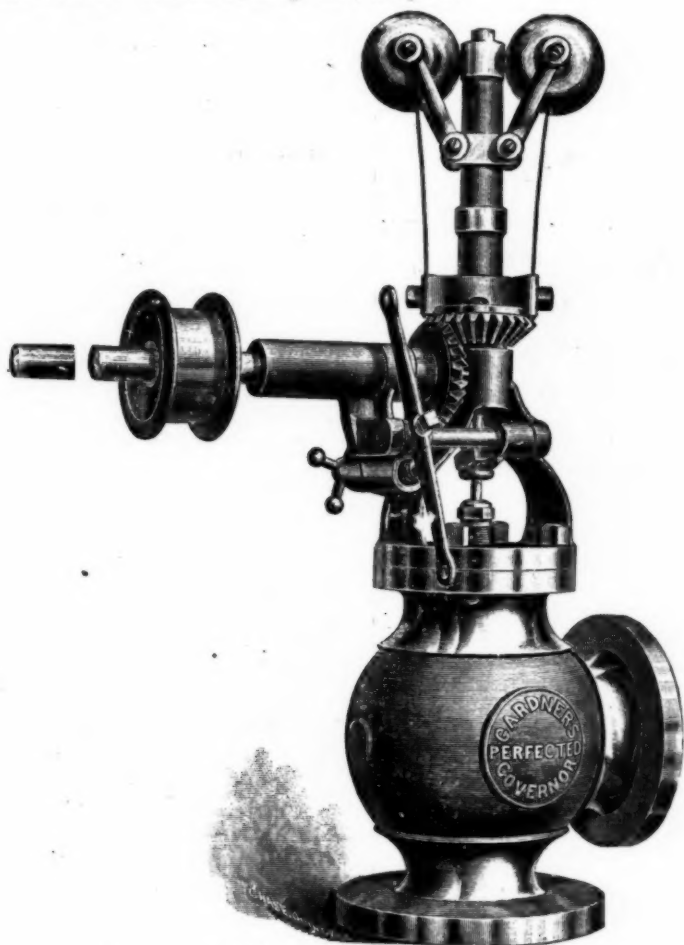
These governors are made by the duplication of parts, so that pieces can be furnished for repairs when required.

THE MARKETS.

OFFICE MANUFACTURERS' RECORD.
BALTIMORE, NOV. 5, 1884.

The political excitement of the week has interfered very materially with business, and there is nothing new to report. The presidential canvass which closed yesterday was closely contested, and at this writing it is uncertain which candidate has been elected, both parties claiming victory.

In the manufactured iron trade, business has been quiet and depressed, with values nominally unchanged and favoring buyers. We quote:



THE GARDNER SPRING GOVERNOR.

Ref. Bar Iron, 1 to 6x3/4 to 1..... 1.90 2 c

" " 1 to 4x1 1/2 to 1.....	1.90 2 c
" " 3/4 to 2, round and	"
square.....	1.00 2 c
Hoon Iron, 1 1/2 wide and upward ..	2.50 3 c
Band Iron, from 1 1/2 to 6 in. wide...	2 1/2 2.60
Horseshoe Iron.....	3.00 3.30
Norway Nail Rods.....	5 5 1/2 c
Black Diamond Cast Steel.....	10 11 c
Machinery Steel.....	4 1/2 4 3/4 c
Spring Steel.....	3 1/2 4 c
Common Horse Nails.....	10 11 c
Railroad Spikes, 5/8x16.....	9.50 9.60

The pig iron market remains unchanged, with prices as last quoted, viz:

Baltimore Charcoal Wheel Iron (all	28 00@29 00
Baltimore ore).....	28 00@29 00
Virginia C B. Charcoal Wheel Iron....	28 00@29 00
Anthracite, No. 1.....	20 00@21 00
" " 2.....	18 00@20 00
" " 3.....	16 00@17 00
Mottled and White.....	16 00@17 00

HARDWARE.

Trade continues only moderately good, the political canvass having so engrossed public attention as to largely restrict all business transactions. Prices are about as last quoted.

Nails are inactive at \$2 to \$2.10, according to quantity and quality, with market dull, though there is some talk of improvement in the near future.

North Carolina's Exhibition.

A Marvellous Showing of a State's Resources.

[Special correspondence BALTIMORE MANUFACTURERS' RECORD.]

RALEIGH, N. C., Nov. 1, 1884.

The North Carolina State Exposition is a more accurate index to North Carolina than any preceeding large exposition in this country was to the territory, or the special industry it represented. It was made so by an original method. Instead of depending on private persons or firms to make the exposition by displaying their wares, (which method, however interesting the result may be if not checked, makes a vast bazaar and not an exposition), the management of this enterprise canvassed the State, and secured the appropriation of sums of money from the public treasuries of more than forty counties to defray the expense of collecting and exhibiting specimen products of these counties. Then the county commissioners, or a mass-meeting of citizens in each of these counties appointed exposition committees to collect specimens of the natural products, to gather information about the opportunities offered for immigrants and investors, and to make such an exhibit as they could at Raleigh. So far as these county exhibits are concerned, therefore, the people have made them themselves. A plain, practical man from every one of these counties is here, whose duty and whose pleasure it is to give information about his county. The exposition is, therefore, an aggregation of county expositions, and it has been made by the people of more than 40 counties and not merely by the central managers of the exposition. This is the unique, and especially attractive feature of this great State index. Added to this is the vast collection of North Carolina products made by the State Board of Agriculture from every portion of the State, which in itself is such a museum of the natural resources of the State as no other in the Union ever had. It was a part of this that was carried to Boston last year, and attracted so much attention there, and, after the exposition here closes, it will be sent to New Orleans. Besides all this, of course there are numbers of manufacturing establishments of this State, and the Northern States which make the great fair complete.

In this building, which is 336 by 336, with six long aisles and four court yards, are specimens of everything that man in his highest state of civilization needs to eat, to wear, or to decorate himself with. Indeed such is the unrivalled versatility of the soil in many of these counties that its citizens might build a wall about them, and live in luxury, cut off from the rest of the world, and suffer the lack of nothing else, which would cause so serious a deprivation as the lack of coffee, and this hints of the actual condition of North Carolina up to a period not long past. The people have been so easily self sustaining that they have lacked incentives to a full development of their lands, and have themselves in consequence had a tendency to become provincial.

This in turn, now leads to the uncommon significance and value of this exposition. It is a revelation of their own country to the people of this State, and much more, of course, a revelation of it to the people of other States. Of the 100,000 visitors that have been here, not one has been heard to express any emotion but surprise. The first and most significant effect is on the people of North Carolina themselves. Every county has shown to every other county, every section to every other section, that it not only has almost inestimable natural wealth, but also that its development has been begun and has been carried to an extent that even the best informed men were not aware of. In every department of industry (and in agriculture not less than in manufactures,) the progress made by the people of this State since the census of 1880 was taken, is greater than that made in all the preceding years since the civil war.

At one view along any one of the six long corridors of the main building, you can see specimens of a greater variety of woods, minerals, and agricultural products than any other State produces, and a variety of manufactured products that far outstrips any other Southern State.

The especial opportunities (or groups of opportunities) that are offered to immigrants and capitalists, after a careful study of this confusing mass of wealth, I am sure are these three:

1.—Manufactures of wood. The cutting of pine lumber has always been one of the most important industries of the State, but that is now giving way to the more advanced manufacture of products from wood. All the valuable hard woods of the Union thrive here—hickory, oak, ash, walnut, and all the rest; and lands covered with them can be bought, accessible to railroads, for \$10 to \$15 per acre, which can be sold after the wood is cut for as much as they cost in forest. The success of the manufacture of such products as handles, spokes, shuttles, and the like, is rapidly stimulating all kinds of such manufacture; and the next step to be taken is the erection, somewhere in central North Carolina, of a factory of plain furniture.

Along with the manufacture of wooden products, the preparation of building stones will naturally come. Here are vast quantities of sandstone, granite, and marble, recently made accessible by rail, but few quarries; and the people are just beginning to see the folly of importing slabs for tombstones from Vermont to mark the resting place of their dead, where graves are dug in hillsides that are themselves of marble. A curious illustration of the virgin opportunities here is this; the old Capitol of the State, which was burned more than 50 years ago, had mantel-pieces of serpentine; and an old text-book on North Carolina geology stated the fact that a fine quality of this stone was found twelve miles from this city. Yet for half a century the serpentine was lost, and last year it was accidentally discovered—whole hills of it, precisely twelve miles from this city.

2. The cultivation and manufacture of tobacco is at once the most profitable agriculture and manufacture in the Union of any staple product. There is no parallel in Southern development to the advance made in riches and comfort by the tobacco farmers in Greenville, Person, Durham, Rockingham, Forsyth and Vance Counties (the centre of the bright-tobacco belt), nor to the progress of the tobacco manufacturing towns—Durham, Winston, Reidsville, Henderson, and Oxford. This has brought of necessity a change from the extensive to the intensive system of farming. Simply as an investment, few opportunities are as tempting as the purchase of tobacco lands, the price of many acres of which these five years by the increase of the industry has been doubled and even quadrupled.

3. The fisheries on the sounds of North Carolina can be made of greater aggregate value than the fisheries of Cape Cod or Chesapeake bay; and now, for the first time, this is attracting the attention of capitalists. The density of the black population, and the consequent industrial stagnation, and the terrors of Hatteras, have kept these opportunities unknown until now. The exhibit of fishes at the exposition, prepared by the new Davidson process of ichthy-taxidermy, is a revelation.

The number of visitors from the North to the exposition, in consequence of the presidential election, has not been large, but interested prospectors have gone from Raleigh this month to every portion of the State, and the exposition has aroused the people here to make such a manufacturing effort as has never before been dreamed of. The exposition is a surprise and a revelation to them.

THE New Orleans Exposition managers find it necessary to erect still another building, so great is the demand for space.

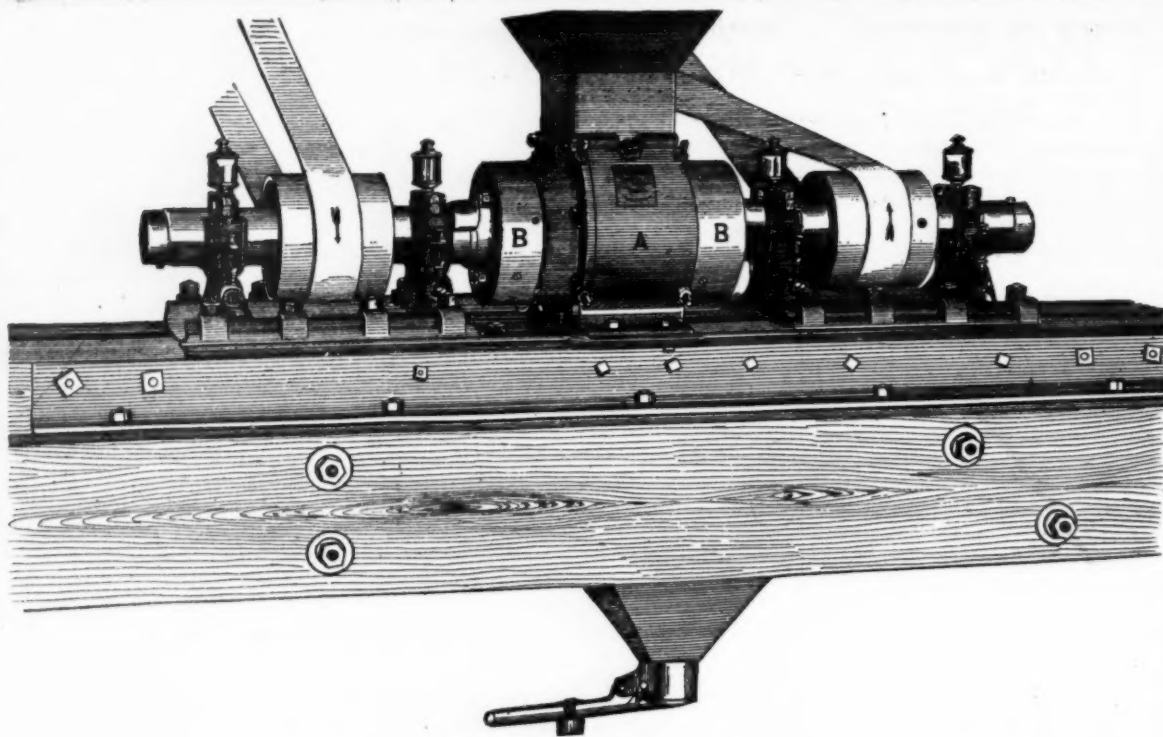


FIG. 1.—THE STURTEVANT MILL.

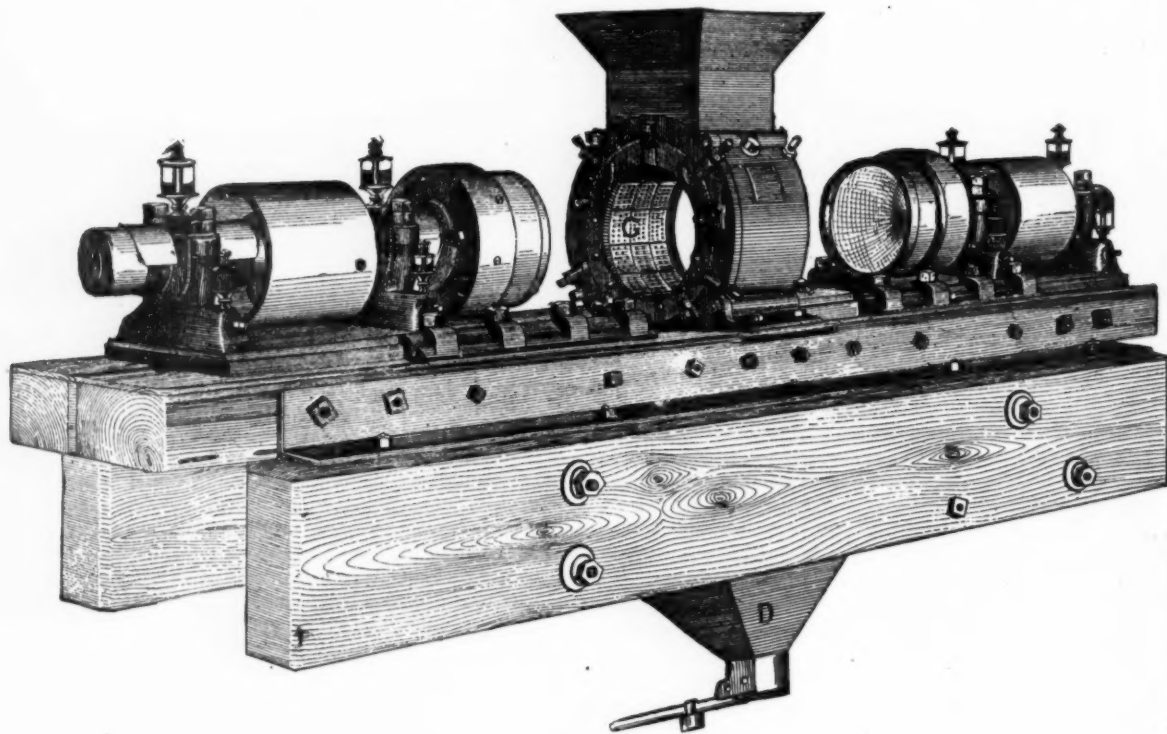


FIG. 2.

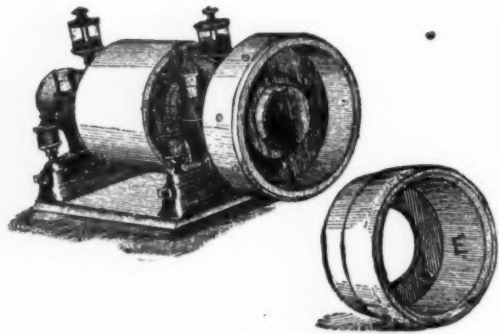


FIG. 3.

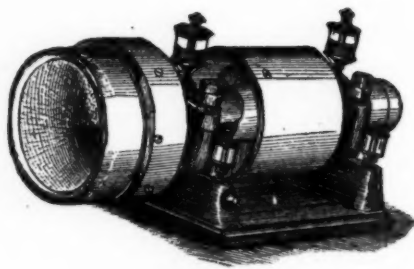


FIG. 4.

The Sturtevant Mill.

During the past few years, the principle has been gaining ground that the most economical means of crushing and pulverizing rock, so far as large capacity and a minimum wear are concerned, is to cause the attrition of the rock by impact of the particles of rock themselves. Ingenious contrivances, from a mechanical point of view, have been brought forward, but from inherent defects they have failed to gain a foothold. The disadvantages of other crushing and pulverizing mills, it is believed, have been entirely overcome by the Sturtevant Mill, made by the Sturtevant Mill Company, No. 43 Chatham street, Boston, which we illus-

trate to-day. As a glance at our illustration will show, the mill is composed of two cylinders or heads B B, Fig. 1, arranged on opposite sides of a case in which they are made to revolve in opposite directions. The rock being conveyed to the case through the hopper, is retained by a screen, and, entering the heads in revolution, is immediately thrown out in opposite directions with such force that the impact of the pieces of rock crushes them. The revolving head is shown, taken apart, in Fig. 3, being composed only of two pieces, one of which E is a simple metal cylinder or bushing, which when worn out can be easily replaced. When running, this head is filled with a lining of rock held in place by the centrifugal force. With the

exception of the edges of the bushing, this lining protects the metal from wear. In fact, we understand that in the first little machine put together by the inventor to test the correctness of his idea, these heads were made simply of tin cans, and yet the little experimental apparatus, rough as it was, did its work. Fig. 2, which shows the interior of the mill, illustrates the position of the screen C through which the ground material passes and through which it drops from the hopper D. When uniformity of size is required, the coarse part is screened out and returned to the mill. The screen is made in small sections which are easily transported and replaced. The wear of it is claimed to be slight, as it is protected from the action

of the rock thrown against it by a cushion of interposing material formed by a portion of the rock that always rests against the screen. The Sturtevant Mill Company makes three sizes of portable mills—a four inch, crushing from 100 to 400 pounds an hour, weighing 500 pounds, and requiring five horse-power; a six-inch, having a capacity of from 400 to 1,000 pounds, weighing 800 pounds, and requiring seven horse-power; and an eight-inch, crushing from 600 to 1,200 pounds an hour, weighing about 1,300 pounds. It also makes three sizes of stationary mills—an 8-inch, 12-inch, and 20-inch—which are rated at from 1,000 to 2,000 pounds, one to four tons, and two to ten tons respectively, and require, in the order named, 13, 30, and 60 horse-power, and weigh about 1,600, 4,000, and 6,000 pounds respectively. The 12-inch is claimed to be equal in capacity to a twenty-stamp mill, and the 20-inch equal to a thirty-stamp mill. The space occupied by the mill, in its different sizes, is very small, indeed, as compared with the rated capacity. The advantages of the mill, its simplicity, its low rate of wear, its lightness and compactness, will be evident at once from its design. It has, we understand, done excellent work on that *bête noire* of all pulverizers, phosphate rock, and is in operation on a large scale on other classes of work.

The Clem & Morse Elevator.

Messrs. Morton, Reed & Co. have recently put a Clem & Morse elevator in the new 6 story building of Messrs. Francis Summer & Co., Cor. German and Paca streets, and a few days ago gave an exhibition to test the working of the new improved pneumatic safety catch. The exhibition, under the direction of Mr. Macclary, a representative of Clem & Morse, Philadelphia, was an interesting one, and demonstrated the safety of the elevator under almost any circumstances. Under the elevator is placed a half-inch board attached to springs. Should any accident occur, such as the breaking of the cable, or of a belt, or any part of machinery, that would increase the speed of the elevator in descent, the pressure of the air forces up the half-inch board, thus causing the revolution of the steel shafts, running across the bottom of the elevator underneath, and provided at each end with sharp cog-teeth, which clutch the guide strips of the elevator, and it is stopped almost instantly. The experiment was tried repeatedly of cutting the rope while the elevator was ascending or descending loaded with men. The fall was from one to two inches only, and the heavier the weight, the shorter the distance of the fall.

A man caught at the bottom of the well while the elevator was descending could save himself from being crushed by simply pressing the board under the elevator as soon as it came within reach. The elevator would stop immediately.

Another feature of importance in the Clem & Morse elevator is what is known as the Albro Hindly worm, to which they have the exclusive right. It is a worm curved to the arc of the worm wheel, by which means there are at all times ten cogs interlocked, instead of only one, as is the case with the straight worm in general use, thus distributing the strain, and reducing the wear, as well as removing all possibility of jarring or jolting.

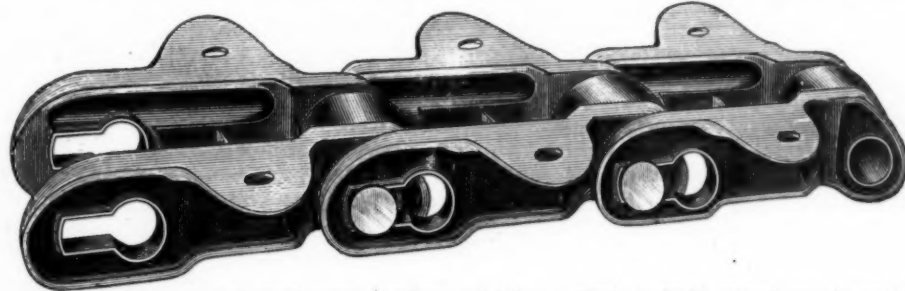
PERSONS going to Cincinnati, either on business or pleasure, are advised to stop at the Palace Hotel. It is convenient to the business section of the city, as well as to all points of interest and places of amusement. The cars of nearly every prominent street car line pass its doors, or within a short distance of it. It is a new hotel, splendidly furnished, and provided with every convenience for the comfort of its guests. Its rates are as low as those of any other first-class hotel. Location, cor. Sixth and Vine streets.

Section Endless Trough Conveyor.

The Endless Trough Conveyor shown below is one of the many uses to which roller chain is applied with great success. Anti-friction roller chain is so constructed that the chain is carried upon its rollers, which serve as trucks, instead of dragging, thus requiring but little power to drive it. Endless trough conveyor chains consist wholly of flat or "D" attachments, (as shown in the cut), which forms a solid floor for the trough to rest upon, and to which they are bolted, each trough having but one fastening, to allow them to pass over the sprocket wheels. The troughs are so arranged on the chain that they overlap, and in passing over the sprocket wheels, at the point of discharge, do not separate, but are always connected, so that there is no possibility of their becoming entangled, or allowing the contents to fall upon the wheels. This forms an endless open trough, which runs upon a plain provided for the purpose, and may be run at an incline. The conveyor on its return, is carried back by means of iron or wooden pulleys, used as idler wheels, upon which the inside or bottom of the trough rests. Conveyors of this class can be made of either single or double links of chain, according to the size of trough and capacity required, which



SECTION ENDLESS TROUGH CONVEYOR.



CARRIER—Composed of attachments, forming a solid floor. Single or double strands may be used.

is unlimited. This conveyor, being made entirely of iron, is fire-proof, and is well adapted to carry hot ores, coal, coke, stone, etc., etc. It is manufactured by the Lechner Manufacturing Co., of Columbus, Ohio.

THE Railway Purchasing Agent Co., of Chicago, publish annually the "Official Railway List," a directory of all the railroads in North America, with a list of the officers of each road, the length of line operated, amount of rolling stock, and much other valuable information, making the book an exceedingly useful one to all who have dealings with railroads.

ADVERTISERS wishing to reach the manufacturers of all classes, mining companies, steel, iron and hardware dealers of the entire South, cannot find a better medium than the BALTIMORE MANUFACTURERS' RECORD. We are always prepared to furnish proof of our claims as to circulation.

Philadelphia Iron Market.

PHILADELPHIA, Nov. 3, 1884.

Steel rails have again recovered strength, and are selling well in small lots at \$28 to \$28.50; there is a good deal of inquiry for large lots, and negotiations for spring deliveries are said to be under way, but since the Lehigh Valley order for 10,000 tons last week, nothing in a large way has been done. Rail makers in this State are in very good spirits, as they have plenty to do, prospects of continued activity, and believe that they can hold prices where they are and possibly advance them slightly. Of this latter, there is not much probability however.

In crude iron everything is quiet, but a fair business in small lots is being done. Southern iron is not coming in here owing to the impossibility of furnishing a quality that can compete with Northern irons at a price which with freight charges will allow a profit here. Stocks of good irons are very light, and prices steady at \$19 to \$20 for No. 1, and \$16 to \$17 for Gray Forge.

Bessemer is in very little demand, and is quoted at \$19; 25 per cent. Spiegeleisen has sold at \$28, and 20 per cent. is offered freely at \$26.50. No new orders for structural iron have been announced, but a small business is being done at steady prices, with large orders to be placed at considerably less than

Cincinnati Iron Market Report.

Specially reported by ROGERS, BROWN & Co., Pig Iron Commission.

CINCINNATI, Nov. 3, 1884.

The market remains in the condition noted last week. While the trade is in the main waiting for the election results, and doing little, quite a heavy buying movement is nevertheless quietly in progress that is fast clearing out the small accumulations at the furnaces. Sales the past month are undoubtedly the heaviest of any month the present year; a large proportion of this iron will go to Eastern markets from Southern furnaces. The current has set strongly in this direction the past few months. Two furnaces in the past week have contracted nearly their entire product until after January 1st, at prices better than the Western markets afford. This is a new feature of the trade, and affords a permanent guarantee against undue depression of prices in the West. A recent visit to various Southern furnace headquarters disclosed a firmer feeling on all hands, growing out of the increased inquiry, reduced stocks and reduced output. Unless general business should grow worse, producers believe an improvement in prices cannot be long delayed. We quote for cash f. o. b. cars at Cincinnati.

HOT-BLAST FOUNDRY.

Ohio and Southern Strong Coke No. 1.	\$17 50@18 00
" " " " No. 2.	16 50@17 00
" " " " No. 3.	15 00@15 50
Ohio Soft Stonecoal, No. 1.	18 50@19 00
" " " " No. 2.	17 00@17 50

CHARCOAL IRON.

Hanging Rock, No. 1.	\$21 00@22 00
" " " " No. 2.	19 00@20 00
Tennessee and Alabama, No. 1.	19 50@20 00
" " " " No. 2.	18 00@18 50

FORGE.

Strong Neutral Coke.	\$15 00@15 50
Mottled " "	13 50@14 00
Cold Short.	14 00@15 00

CAR WHEEL AND MALLEABLE.

Southern Car-Wheel Iron.	22 00@25 00
Hanging Rock C. B.	25 00@27 00
" W. B.	20 00@23 00
Lake Superior Malleable.	23 00@24 00

St. Louis Iron Market.

Specially reported by HOFFER & Co., Pig Iron and Iron Ore, No. 318 Olive Street.

ST. LOUIS, Nov. 3, 1884.

The market continues in about the same condition as last week. There is a disposition among consumers however, in view of the early settlement of the election, to place very considerable orders. We quote:

HOT-BLAST CHARCOAL.

Missouri.	\$16 00@17 00
Southern.	16 00@17 00
Ohio.	20 00@22 00

COKE AND COAL.

Missouri.	16 00@17 00
Southern.	18 00@19 00
Ohio.	20 00@22 00

MILL IRONS.

Red Short.	15 50@16 00
Neutral.	15 00@16 00

CAR-WHEEL AND MALLEABLE IRON.

Missouri.	18 00@20 00
Southern.	23 00@27 00
Ohio.	23 00@30 00
Iron, par.	

If you are not already a subscriber to the BALTIMORE MANUFACTURERS' RECORD, send us \$3 and you will receive it regularly for one year or six months for \$1.50.

EVINGTON, VA., Oct. 30, 1884.

Editor Baltimore Manufacturers' Record:

Messrs. M. P. Davis & Co. have leased for 20 years or more the Barytes mines of Dr. R. N. Hewitt, of Evington, Va., which are situated 17 miles south of Lynchburg on the Virginia Midland Railroad. They have erected in $\frac{1}{4}$ of a mile from mines a large steam mill, which has the capacity to turn out from 5 to 6 tons in every 24 hours.

Tanner & Bliss, from Lynchburg, are working a portion of the mines; they have a large force at work; the crude ore is shipped to their mills which are in, or near Lynchburg.

A new brick building has just been completed for the Lone Jack Cigarette Co. in Lynchburg, Va., and the cigarette machine, which has lately been patented, is turning out large quantities of cigarettes daily.

Yours truly, J. J. HARDWICK.

List of Patents.

The following Patents were granted to citizens of the Southern States, bearing date Oct. 28, 1884. Reported expressly for this paper by Louis Bagger & Co., Mechanical Experts and Solicitors of Patents, Washington, D. C.

Ashford, T. B., Clinton, N. C.	Indicator lock.	307,254
Benson, W. D., and T. B. Lumpkin, Rocky Mount, S. C.	Burglar alarm.	307,260
DeButts, Jno., Centerville, Md.	Corn planter.	307,183
Eskeu, S. T., Cherry Grove, Ark.	Seedling machine and fertilizer distributor.	307,279
Farmer, J. H., Russell, Ky.	Snap hook.	307,280
Flatan, L. S., Pittsburg, Tex.	Cotton planter.	307,283
Green, J. J., Jackson, Miss.	Process of, and apparatus for removing fiber from cotton seed.	307,190
Hamer, J. W., Wenona, Miss.	Plow fender.	307,173
Hare, John R., Baltimore, Md.	Refrigerator bucket.	307,299
Kokernot, A. B., New Orleans, La.	Marine propelling wheel.	307,400
Leder, Geo., Demopolis, Ala.	Apparatus for extracting oil from cotton and other seed.	307,123
Leder, George, Demopolis, Ala.	Extracting oil from cotton and other seed.	307,124
Lee, T. L., Memphis, Tenn.	Barrel former.	307,313
McGovern, George, Richmond, Va.	Key-hole guard.	307,403
Pattison, J. E., New Orleans, La.	Device for removing sediment from the bottoms of tanks, cisterns, &c.	307,323
Pattison, J. E., New Orleans, La.	Device for removing sediment.	307,324
Pattison, J. E., New Orleans, La.	Apparatus for removing sediment from tanks.	307,325
Pattison, J. E., New Orleans, La.	Device for cleaning sisters.	307,326
Pritchett, W. H., Ferris, Tex.	Car coupling.	307,138
Pugh, T. R., and A. P. LeGros, Louisville, Ky.	Car door lock.	307,139
Roberts, E. J., Ashland, Ky.	Car coupling.	307,228
Schindel, S. M., Hagerstown, Md.	Corn husking and cleaning machine.	307,739
Smith, G. D., Glenn Springs, S. C.	Vehicle wheel.	307,346
Teipel, Benj., Covington, Ky.	Trap for throwing targets.	307,149
Winebrenner, H. C., Baltimore, Md.	Timer's fire pot.	307,368
Woodburn, W. W., Willis, Tex.	Hydraulic motor.	307,418
Worland, Josephus L., Williamston, N. C.	Hame hook.	307,158

Cincinnati Iron Market Report.

Specially reported by E. L. HARPER & Co.

CINCINNATI, Nov. 2, 1884.

There is a general impression that "the bottom" has been reached, and furnacemen exhibit an independence and hopefulness not felt for several months; standard brands of foundry irons are in good request. The general tone of the market is firm, and prospects for an improved trade are brighter. There is no appreciable change in prices, but there has been no cutting the past week on straight grades, while one large furnace company has moved its minimum price on a popular brand up fifty cents. We quote as prices current:

	FOUNDRY.	Cash.
Hanging Rock Charcoal, No. 1.	\$21 00@22 00	
" " " " No. 2.	20 00@21 00	
Strong Neutral Coke.	17 00@18 00	
" " " " " "	16 00@16 50	
American Scotch.	17 00@17 50	
	GREY FORGE.	
Neutral Coke.	15 00@15 50	
Cold Short.	14 50@15 00	
	CAR WHEEL AND MALLEABLE.	
Hanging Rock, strictly cold blast.	25 50@26 00	
" " " " " " warm " "	22 00@22 50	
Lake Superior Charcoal, all grades.	22 00@23 00	
South. Car Wheel, strictly cold blast.	22 00@23 00	
Amherst and Virginia Warm Blast.	21 00@21 50	

Business Chances.

For the purpose of making the MANUFACTURERS' RECORD a still more valuable medium of communication between its readers North and South, we will publish, FREE OF CHARGE, short advertisements, not exceeding 40 words, from those in the South who have mills, factories, manufacturing sites or water-power for sale, capital wanted for industrial enterprises, &c., &c.; while readers in other sections who desire to engage in manufactures at the South are also invited to use these columns, without cost, either in seeking information regarding the advantages and special claims of different localities, or for asking about good openings for men and money. This department is also free for Southern manufacturers who wish to advertise for mill managers superintendents, engineers, &c.

In corresponding with any of these advertisers please mention the Baltimore Manufacturers' Record.

MACHINERY WANTED.—Second-hand 4-4 Looms, Draper, Spooler, Quiller, Warper. Say what make and condition, and give with prices attached. H. G. Hall, Fayetteville, N. C.

CAPITAL WANTED.—Readers of the MANUFACTURERS' RECORD who have money in government bonds at 4 per cent. can easily invest it with perfect security in the South at double government rates to wit: They can get eight per cent. per annum, payable quarterly in advance. I will guarantee to invest it with gilt edge security, free commission, as above. For particulars, address W. T. Brooks, Water Valley, Miss.

WATER VALLEY MISS., on the Illinois Central R. R., has unsurpassed facilities for the following factories to be located there, 1st, wagon and buggy factory; 2d, cotton and furniture factory; 3d, tannery or leather factory; 4th, dairy farm and blooded stock farm; 5th, hub, handles, spoke and fellow works. W. T. Brooks, Water Valley, Miss.

A SPLENDID OPPORTUNITY.—One of the best places in the South to establish a factory for making different articles from wood, such as plates, buckets, tubs, spokes and handles, &c. Freight facilities ample and cheap. A cotton factory is needed, and many enterprises could be made profitable. The place is Washington, North Carolina. Address S. J., care of MANUFACTURERS' RECORD, Baltimore, Md.

SAW MILL FOR SALE.—A 40 H. P. boiler and engine, (Taylor Mfg. Co.) and saw mill, located in a thriving village in Florida, active building; planer, lath machine, shingle machine, all new and in good running order. Owners sell because they are not practical mill men, but have brought this machinery to develop their property. Big money in it for right man. Box 418, Jacksonville, Fla.

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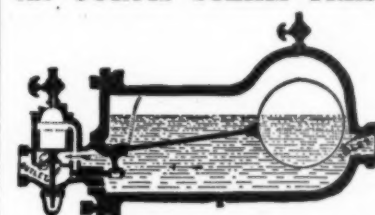
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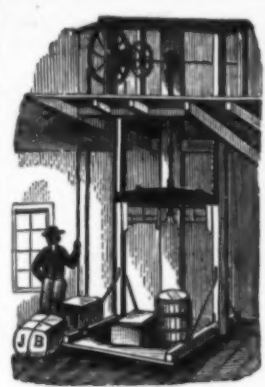
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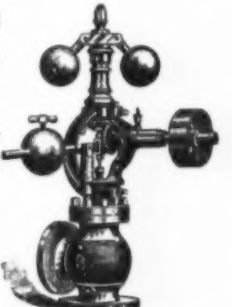
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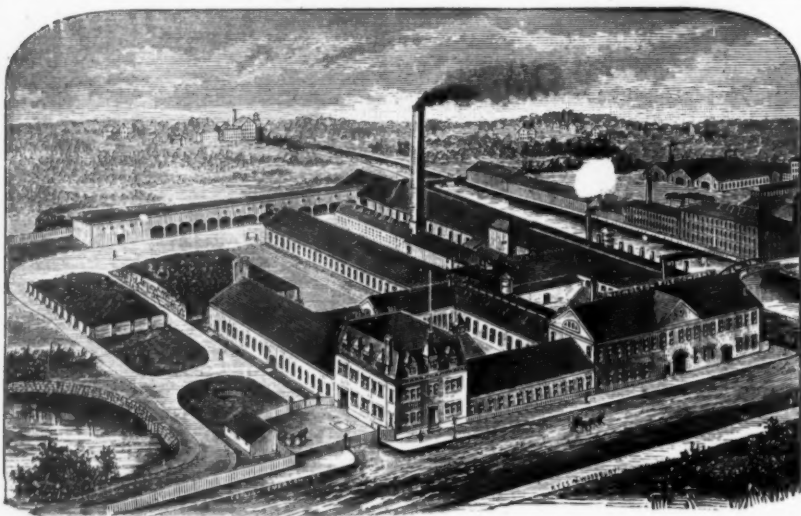
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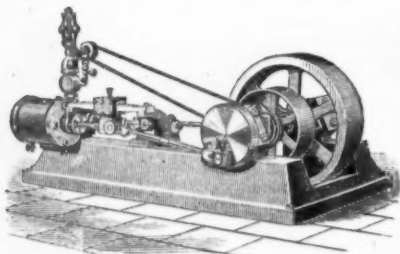
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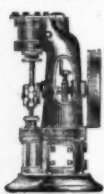
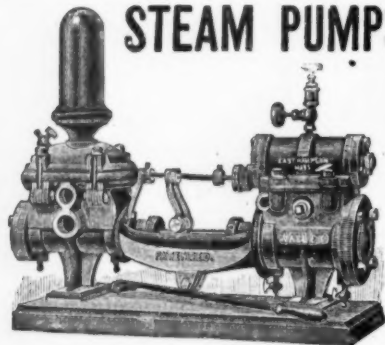
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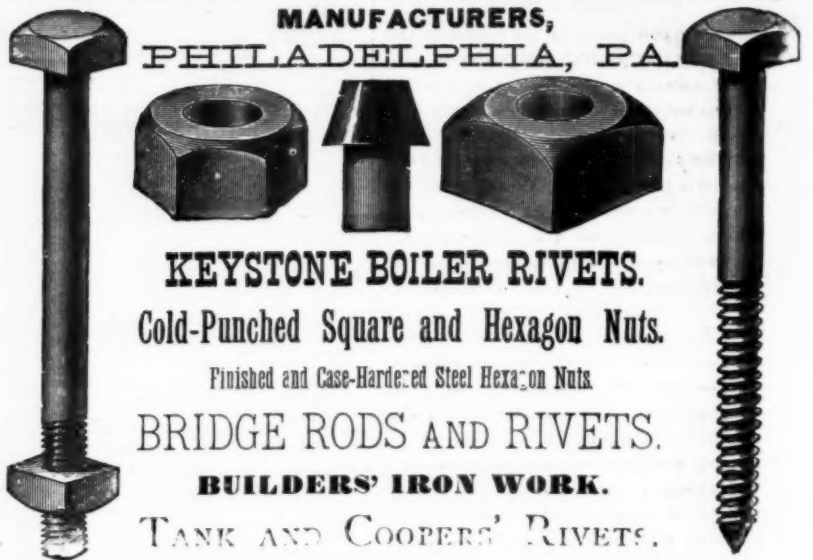
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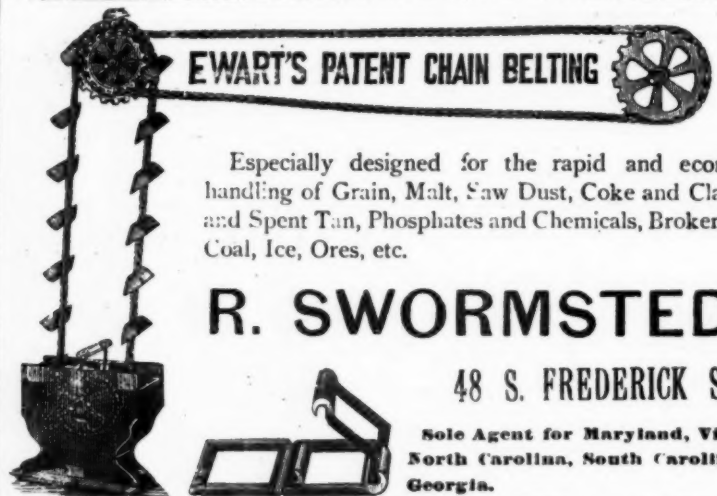
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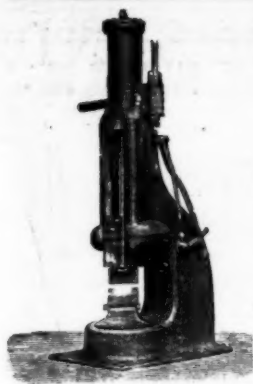
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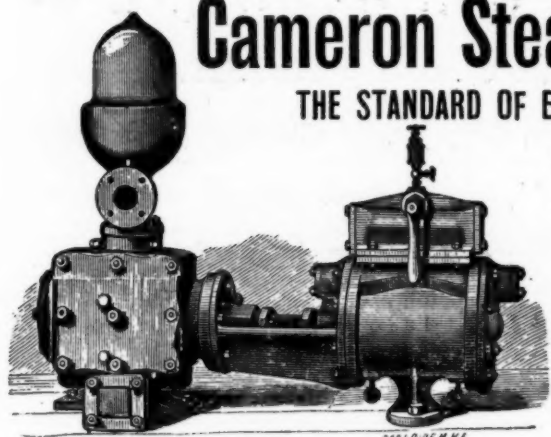


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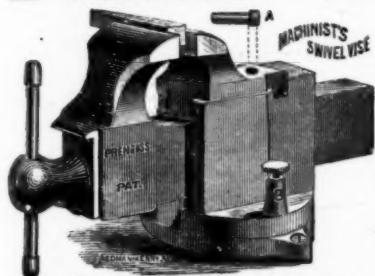
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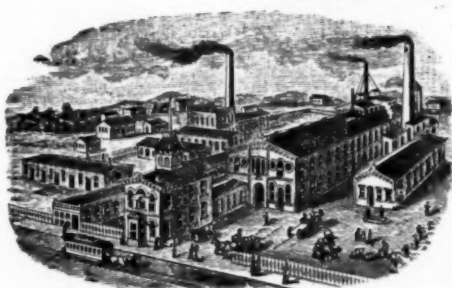
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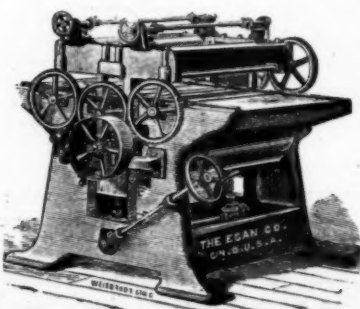


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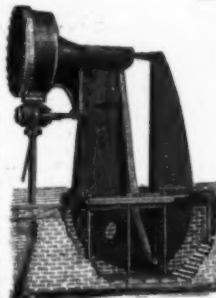
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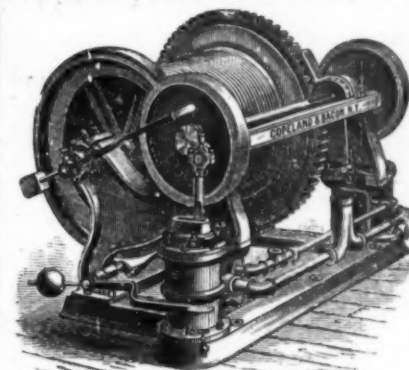
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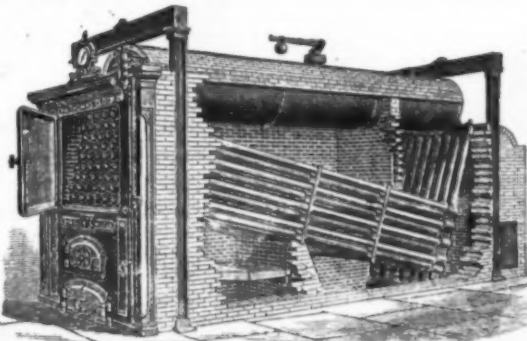
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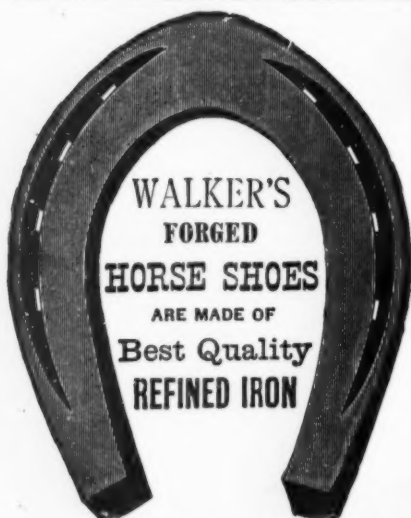
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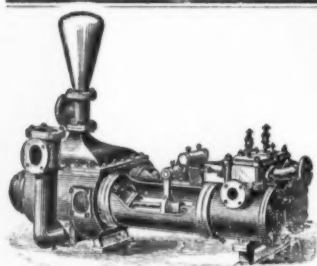
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MATTHEWS AUTOMATIC HIGH-SPEED ENGINE,

For Electric Lights and other purposes requiring steady, reliable power. The best and cheapest in the market. 25 H. P. for \$500. SEND FOR CIRCULAR.

→ HARDWARE. ←

Baltimore WHOLESALE Prices.

ANVILS.

Eagle and Vulcan..... 10 c. dis 20%
Wright's..... 10 c. dis 20%
Armstrong's Mouse Hole..... 9 1/2 c.
Trenton..... 10 1/2 c.
Wilkinson's..... 10 1/2 c.

AUGERS AND BITS.

Conn. Valley Mfg. Co..... dis 60%
Douglass Mfg. Co..... from list of
Ives..... Jan. 7, 1880
Cook's Douglass Mfg. Co..... dis 40%
Griswold..... dis 50%
Patent Solid Head..... dis 25%
Russell Jennings' Auger, Dowell, Machine-
Dowel and Hand Rail Bits..... dis 10%
Ives' "Jennings" Bits..... dis 10%
Expansive Bits, Clark's small, 1 1/2; large, 2, dis 25%
Expansive Bits, Ives..... dis 33 1/2%
Expansive Bits, Blake's..... dis 40%
Hollow Augers, Douglass..... dis 25%
Hol. Aug., Honney's Adjust., 1/2 doz \$4.80, dis 25%
Hol. Aug., Stearns' Adjust., 1/2 doz \$4.80, dis 25%
Hol. Aug., Ives' Expansive, each \$4.50, dis 30%
Hol. Aug., Universal Expansive, each \$4.50, dis 20%
Wood's..... dis 25%
Gimlet Bits..... 75 c. gross, dis 50%
Gimlet Bits, Diamond..... 75 c. gross, dis 50%
Double Cut Gimlet Bits, Shephardson's..... dis 33 1/2%
Double Cut Gimlet Bits, Douglass..... dis 33 1/2%
Double Cut Gimlet Bits, Ives..... dis 50%
Morse's Bit Stock Drill..... dis 25%
L'Hommedieu's Ship Augers..... dis 15%

AWL HAFPS.

Sewing Brass Ferrule..... 35 c. gross, dis 40%
Patent Sewing, Short..... 35 c. gross, dis 40%
Patent Sewing, Long..... 35 c. gross, dis 40%
Patent Peg, Plain Top..... 35 c. gross, dis 40%
Patent Peg, Leather Top..... 35 c. gross, dis 40%

AWLS, BRAD SETS, &c.

Awls, Sewing, Common..... 75 c. to \$1
Awls, Shouldered Peg..... 75 c. to \$1
Awls, Patent Peg..... 75 c. to \$1
Awls, Shouldered Brad, 1/2 gross \$2.70, dis 25%
Awls, Handled Brad..... 75 c. gross, dis 25%
Brad Sets, Aiken's..... 75 c. gross, dis 25%
Brad Sets, No. 42, 10/30; No. 43, 12/50, dis 70%
Brad Sets, Stanley's Exc., No. 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100, dis 30%
Brad Sets, Stanley's Exc., No. 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100, dis 30%
Brad Sets, Stanley's Exc., No. 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100, dis 30%

AXES.

Collins & Co..... 75 c. to \$1
Cohoes Mfg. Co..... 75 c. to \$1
Lippincott or Mann's..... 75 c. to \$1
Single Bit, 4 1/2 to 5 1/2 and under..... 75 c. to \$1
Single Bit, 4 1/2 to 6 and over..... 75 c. to \$1
Single Bit, beveled..... 75 c. to \$1
Double Bit, 4 1/2 to 5 1/2 and under..... 75 c. to \$1
Double Bit, 4 1/2 to 6 and over..... 75 c. to \$1
Double Bit, beveled..... 75 c. to \$1
Second quality Axes..... 50 cts. less than above

AXLES.

Sheldon & Co., iron..... 55% off
steel..... 55% off
AXLE GREASE—Frazier's..... 10 c. to 15 c.

BALANCES.

Spring Balances..... dis 25% to 30%

BELLS.

Hand, Light Brass..... dis 70%
Hand, White Metal..... dis 60%
Hand, Silver Chime..... dis 20%
Hand, Globe (Cone's Patent)..... dis 25%
Gong, Abbe's..... dis 20%
Gong, Yankee..... dis 20%
Gong, Barton's..... dis 20%
Leon Reading..... dis 25%
Pull, Brook's..... dis 20%
Crank, Taylor's..... dis 25%
Lever, Sargent's..... dis 25%
Bloomfield..... dis 20%
Lever, R. & E. M. Co's..... dis 45%
Call..... dis 25%
Cow, Common Wrought..... dis 55%
Cow, Western, Sargent's List..... dis 55%
Cow, Kentucky, Sargent's List..... dis 55%
Cow, Moore's or Dodge's, Genuine Key, new list, Nos. 0 1 1/2 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100, dis 60%
Cow, Texas "Star"..... dis 40%

BELLGUNS.

Blacksmith's Common..... dis 25%
Molder's..... dis 25%
Hand Bellows..... dis 25%

BLIND FASTENERS.

Francis..... dis 20%
Macrell's..... 1/2 doz pairs \$1.00, dis 20%
Van Sand's Screw Pattern..... 1/2 doz pairs \$1.00, dis 20%
Van Sand's Old Pattern..... 1/2 doz pairs \$1.00, dis 20%
Merriman's, new list, net
Zimmerman's, 10 1/2 in..... 1/2 doz pairs \$1.00, dis 20%
Zimmerman's, 9 in..... 1/2 doz pairs \$1.00, dis 20%
Zimmerman's, without screws..... 1/2 doz pairs \$1.00, dis 20%

BLIND STAPLES.

Barbed, 1/2 in. and larger..... 11 c. net
Barbed, 3/4 in..... 13 c. net

BLOCKS.

Penfield Block Co., Rope and Iron Strap'd..... dis 40%

BOLTS.

Cast Iron Barrel Shutter, &c..... dis 55%
Cast Iron Chain (Sargent's list)..... dis 60%
Wrought Barrel..... dis 55%
Wrought Square..... dis 55%
Wrt. Shutter, all Iron, Stanley's list..... dis 50%
Wrt. Shutter, Brass Knob, Stanley's list..... dis 50%
Wrought Sunk Flush, Sargent's list..... dis 55%
Wrought Sunk Flush, Stanley's list..... dis 55%
Wrought B. K. Flush, Stanley's..... dis 50%
Carriage and Tire, Common, new list..... dis 75%
Carriage and Tire, Philadelphia Pattern..... dis 50%
Carriage Bolts, Clarke's..... dis 80%
Carriage Bolts, Lancaster Bolt Co..... dis 80%
Excelsior, Low List..... dis 60%
Norway..... dis 75%
R. B. & W. Carriage (old list)..... dis 65%
Tire, American Screw Co's, Phila..... dis 80%
Tire, "Bay State"..... dis 70%
Eagle Philadelphia Tire Bolt..... dis 82 1/2%
Stove..... dis 60%
Plow..... dis 50%
Machine..... dis 70%
Bolt Ends and Lag Screws..... dis 70%

BRONX.

150 c. net.

BRACES.

Q. S. Backus..... dis 50%
Barber's..... dis 40%
Spofford's Patent..... dis 50%
Ives' Patent Braces..... dis 50%
Common Ball (American)..... dis 55%
Amidon's..... dis 50%

BORING MACHINES—WITHOUT AUGERS.

Sweet & Clark upright, 3.60 angular..... 4.40 net
Lawrence..... 3.00
Hubbard..... 3.00
Phillips, with Augers..... 7.00 7.50 net

BRACKETS.

Shelf, plain..... dis 50%
Shelf, fancy..... dis 55% to 60%

BRIGHT WIRE GOODS.

New list..... dis 70% to 80%

BULL RINGS.

Sargent's..... dis 55%
Sargent's..... dis 60%
Humason, Beckley & Co's..... dis 60% to 80%

BUTTS.

Wrought Brass..... dis 75%
Cast Brass, Fast Joint..... dis 20%
Cast Brass, Loose Joint..... dis 10%
Fast Joint, Narrow..... dis 45%
Fast Joint, Broad..... dis 45%
Loose Joint..... dis 60%
Loose Joint, Japanned..... dis 60%
Loose Joint, Jap, with Acorn..... dis 60%
Parliament Butts..... dis 60%
Mayer's Hinges..... dis 60%
Loose Pin, no Acorn..... dis 60%
Loose Pin, Acorn..... dis 60%
Loose Pin, Acorn, Japanned..... dis 60%
Loose Pin, Acorn, Jap'd, Plated..... dis 60%

Wrought Iron.

Fast Joint, Narrow..... dis 60%
Fast Joint, L. Narrow..... dis 60%
Fast Joint, Broad..... dis 60%
Loose Joint, Broad..... dis 60%
Table Butts, Rack Flaps, &c..... dis 60%
Inside Blind, Regular..... dis 60%
Inside Blind, Light..... dis 60%
Loose Pin, Wrt..... dis 60%
Loose Pin, Light..... dis 60%
Spring Hinges..... dis 60%
Geer's Spring and Blank Butts..... dis 25%
Clarke Hardware Co's..... dis 50%
American Spring Hinge Co's..... dis 25%
Gem Spring Hinges..... dis 25%
Blind Butts, Shepard's, Nos. 50 and 60..... dis 70%
Blind Butts, Shepard's, No. 50..... dis 70%
Blind Butts, Shepard's, No. 75..... dis 70%
Blind Butts, Lull & Porter..... dis 75%
Blind Butts, Huffer..... dis 50%
Blind Butts, Clark's, Nos. 1, 3, 5..... dis 70%
Standard Lull & Porter..... dis 75%

BOW PINS.

Humason, Beckley & Co's..... dis 55%
Sargent & Co's..... \$19.70 and 21.40; dis 60%
Hotchkiss..... dis 25%

BUTCHER'S CLEAVERS.

Humason & Beckley Mfg. Co..... dis 25%
Bradley's..... dis 25%
Beatty's..... dis 25%
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100, dis 30%

CAN OPENERS.

American..... 75 c. gross \$7.50, dis 10%
New Idea..... 75 c. gross \$7.50, dis 10%
No. 4, French..... 75 c. gross \$7.50, dis 10%
No. 5, Iron Handle..... 75 c. gross \$7.50, dis 10%
Sardine Scissors..... 75 c. gross \$7.50, dis 10%
Sprague, No. 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100, dis 30%

CAPS, PERCUSSION, &c.

U. M. C., F. C. trimmed..... 50 c. to 70 c.
U. M. C., F. L. ground..... 70 c. to 80 c.
U. M. C., Cen. fire ground..... 70 c. to 80 c.
U. M. C., Double W. Proof..... \$1.40
G. D. & S. B..... 33 c. to 40 c.
E. B. 1-10, Eley's..... 60 c.
Musket, in 1-10..... 55 c.
Hicks Ground Edge in Brass Boxes..... 35 c.

CARTRIDGES.

Rim..... dis 50%
Central Fire, pistol size..... dis 33 1/2%
Military..... dis 25%
B. B. Caps, Round Balls..... 1-75
Swaged Central..... 1-90

NEW LIST ON CARTRIDGES.

Rim-fire, 22 short..... 5 c. long..... 6 c.
" 32 "..... 10 c. long..... 15 c.
" 41 "..... 15 c. long..... 17 c.
Central Fire—32, \$11.00; 38, \$13.50; 41, 15.00; 44, \$19.00.

HORSE AND CURRY, NEW LIST, JULY, 1881.

Cotton, new list, July, 1881..... dis 10%
Wool, new list, July, 1881..... dis 10%

CARPET STRETCHERS.

Cast Steel, Polished..... 1/2 doz \$5.00, dis 30%
Cast Iron, Steel Points..... 1/2 doz \$2.00, dis 50%
Bullard's..... dis 25%

CASTERS.

Bed..... dis 47 1/2%
Plate and Shallow Socket..... dis 47 1/2%
Deep Socket..... dis 25%
Martin's Patent (Phenix)..... dis 25%

CASTLE LEADERS.

Humason, Beckley & Co's..... dis 60%
Sargent's..... dis 60%
P. S. & W..... dis 25% to 30%

CHAIN.

German Halter and coil Chain..... dis 50%
Trace, Breast and Fancy..... dis 45%
Oneida Halter Chain (old list)..... dis 45%
Galvanized Pump Chain..... 1/2 doz \$8 net
Jack Chain, Iron..... dis 60%
Jack Chain, Brass..... dis 50%

CHALK.

White..... 75 c. gross 60 c. net
Red..... 75 c. gross 85 c. net
Blue..... 75 c. gross \$1.00 net
White Crayons..... 75 c. gross 90 c. net

COTTON LINES.

Cotton Fish Lines..... dis 33 1/2%
Cotton Chalk Lines, 20 feet:
Nos. 10, 13, 15, 17, 20, dis 33 1/2%
3.00, 3.60, 4.00, 4.50, 5.25, dis 33 1/2%

CHISELS.

Socket Framing, Crossman..... dis 65%
Socket Framing, P. S. & W..... dis 70%
Socket Framing, Douglass..... dis 70%
Socket Framing, Crossman..... dis 65%
Socket Framing, Ohio Tool Co..... dis 70%
Socket Framing, Douglass..... dis 70%
Socket Corner..... dis 70%
Tanged Firmers..... dis 40%
Tanged Firmers, Butcher's..... \$5.00 to \$5.25 to 1/2
I. Merril's Socket and Framing Chisel..... dis 65%

CLAMPS.

Iron, Screw, Eagle..... dis 50%
Iron, Adjustable, Stearns..... dis 20%
Iron, Cabinet, Sargent's..... dis 65%
Iron, Carriage maker's, Carr & Crawley..... dis 25%

CLIPS, AXLE.

Norway or Best..... dis 60%
Superior..... dis 45%
Conestoga..... dis 60%
Coal Hods—Griffiths..... dis 40%

COCKS, BRASS.

Racking, new list, July, 1880..... dis 50%
Globe, new list, July, 1880..... dis 50%
Plain Bibbs, new list, July, 1880..... dis 50%
Ale and Beer, new list, July, 1880..... dis 50%

COFFEE MILLS.

Parker's..... dis 45%
Wilson's..... dis 50%
Logan & Strobridge..... dis 45%
Enterprise Mfg. Co..... dis 25%

COMPASSES, DIVIDERS, &c.

Compasses..... dis 55%
Calipers..... dis 55%

DIVIDERS.

Cook's Pencil..... dis 55%
Cook's Pencil..... dis 10%

COOPERS TOOLS.

Bradley's..... dis 15% to 20%
Barton's..... dis 20%

CROW BARS.

Cast Steel..... 1/2 lb 6c
Iron, Steel Points..... 1/2 lb 4c

CURLING IRONS, &c.

1/2, 3/4, 1 in., \$1.80, 2.00, 2.50..... dis 10%
Curling Tongs..... 1/2 doz \$3.65, dis 10%
Pinching Irons..... 1/2 doz \$7.50, dis 20%

CURRY COMBS.

Fitch's new list..... dis 50%
Hotchkiss, Novelty, new list, July, 1880..... dis 25%
Hotchkiss, Excelsior Superior Champion..... dis 25%
Lawrence, "Perfect"..... dis 25%
Rubber..... 1/2 doz \$10.00, dis 25%
Sweet & Clarke..... dis 50%
Lusters..... dis 25%

CURTAIN PINS.

Silvered Glass..... net
White Enamel..... net

CUTLERY.

Association (Table)..... net
Nauvutuck Cutlery Co..... list net
Patent Auger, Ives'..... net
Wilson's Butcher and Shoe Knives..... dis 30%
Ames' Shoe Knives..... dis 15%
Wm. Rogers Mfg. Co., Plated Cutlery..... Net

DOG COLLARS.

Embossed Gilt..... dis 20%
Leather..... dis 25%
Brass..... dis 25%

DOOR SPRINGS.

Torrey's Rod, regular size, 1/2 doz., \$3.40 dis 40%
Gem (Coil):
No. 1, Large Japanned..... 1/2 doz \$4.00
No. 2, Medium Japanned..... 1/2 doz 2.75
No. 3, Small Japanned..... 1/2 doz 2.00
No. 4, "Shoo Fly" Screen door size, 1.50
No. 5, Screen door size..... dis 30%
No. 6, Medium..... 2.75
No. 7, Large..... 4.00
Standard—10 doz \$1.25; 9 doz \$1.75..... dis 30%
8 doz 2.50; 6 doz \$3.50..... dis 30%
Hercules..... dis 30%

DRAWING KNIVES.

Ohio Tool Co..... dis 60%
Crossman's No. 1..... dis 65%
Nobles Mfg. Co..... dis 15%
Bradley's..... dis 35%
Adjustable Handle..... dis 20%
P. S. & W..... dis 70%
Douglass..... dis 70%

DRILLS AND DRILL STOCKS.

Blacksmith's..... each, \$2.50, dis 10%
Blacksmith's Self-Feeding..... each, 7.50, dis 20%
Breast, P. S. & W..... dis 20%
Breast, Wilson's..... dis 20%
Breast, Willen Falls..... each, \$3.00, dis 25%
Breast, Bartholomew's..... each, \$2.50, dis 25%
Wilson's Drill Stock..... dis 10%
Automatic Boring Tools..... each, \$2.25, dis 20%

EGG BEATERS.

Dover..... 1/2 doz \$2.50, dis 25%
Madellion..... 1/2 doz gross, \$10.00
Victoria..... 1/2 doz gross, \$10.00

EMERY AND EMERY PAPER.

Regular numbers..... 1/2 lb 6c
Flour & F. F..... 1/2 lb 4c
B. & A. Emery Paper..... dis 30% to 35%

ENAMELED AND TINNED WARE.

Kettles..... dis 60%
Sauce Pans..... dis 40%
Tinned Sauce Pans..... dis 40%
Eacutcheon Pins—Brass..... dis 50%

ESCUTCHEONS.

Door Lock..... Same discounts as Door Locks
Brass Thread..... dis 25%
Wood..... dis 25%

FAUCETS.

Fenn's..... dis 40%
Fenn's Cork Stops..... dis 33 1/2%
Star..... dis 55%
Perry's Patent Petroleum..... dis 20%
West's Patent Key..... dis 45%
Anchor Lock..... dis 45%
Metallic Key, Leather Lined..... dis 60%
Cork Lined..... dis 40%
J. Sommer's Best Metallic Key..... dis 40%
J. Sommer's Cork Lined, 1st quality..... dis 50%

FILES.

E. M. Boynton's..... new list, dis 25%
Western File Co..... dis 45%
Butcher's..... \$4.50 to \$5.00
Moss & Gamble..... \$4.50 to \$5.00
H. Disston & Sons (new list)..... dis 40%
Heller Bros. Horse Rasps..... dis 30%
Nicholson..... dis 50%
New American..... dis 40%
Union File Co..... dis 45%
Stubs, new list..... \$7.50 to 1/2, 25% off

FLUTING MACHINES.

Knox, 1/4-inch Rolls..... \$3.50 each } dis 35%
Knox, 3/8-inch Rolls..... \$4.00 each }
Knox, 1/2-inch Rolls..... \$4.50 each }
Knox, 5/8-inch Roll..... \$5.00 each }
Eagle, 3/4-inch Roll..... \$5.15, dis 35%
Eagle, 1/2-inch Roll..... \$5.25, dis 35%
Crown, 1/2-inch, \$3.50; 3/4-inch, \$4.00; 1/2-inch, \$4.50 each, dis 35%
Crown Jewell..... \$5.00 each, dis 35%
American, 1/2-inch, \$3.50; 3/4

LAWN MOWERS.		Enterprise Mfg. Co.	dis 25
Buckeye, Easy and Excelsior, new list.		Monarch.	dis 40
Linen Fish.		Boynton's Lightning Cross Cuts, new list.	dis 40
Wire Clothes, Galvanized, 100 feet.		Boynton's Circular and Mill.	dis 40
LOCKS AND LATCHES.		Boynton's Ice.	dis 25
Cabinet, Eagle.		Boynton's Lightning Hand, Panel and Rip.	dis 40
Cabinet, Gaylord.		Disston's Circular.	dis 40
Cabinet, Bridgeport.		Disston's Mill.	dis 40
Cabinet, P. & F. Corbin.		Disston's Cross Cut.	dis 40
Trunk, new list, Jan 1, 1881.		Disston's Hand, Panel, Rip, &c.	dis 40
Yale Lock Co., Flat Key.		Hubbard, Bakewell & Co. Circular Saws.	dis 40
Plate.		Hubbard, Bakewell & Co. Cross Cut.	dis 40
DOOR LOCKS, ETC.		Hubbard, Bakewell & Co., One-Man's, X Cut.	dis 40
Bradford.		Hubbard, Bakewell & Co., Mill Saws.	dis 40
Norwalk.		Peace Circular and Mill.	dis 40
Norwich.		Peace Hand, Panel and Rip.	dis 40
P. & F. Corbin.		Peace Cross Cuts.	dis 40
Russell & Erwin.		Peace Hand Saw, all widths.	dis 40
Mallory, Wheeler & Co.		Webster Cross Cut, with handles.	dis 40
Padlock-Russell & Erwin.		Griffin's Hack Saws and Blades.	dis 40
Mallory, Wheeler & Co.		White.	dis 40
Norwich Lock Manf. Co.		Saw Rods.	dis 40
Wm. Wilcox & Co.		SAW SETS.	
Wm. Wilcox & Co.'s Plate Locks.		Stillman's Genuine.	dis 40
Romer's.		Stillman's Imitation.	dis 40
Conestoga.		Common Lever.	dis 40
Scandinavian, "Norwich".		Leach's.	dis 40
MALLET.		Hammer, Hotchkiss.	dis 40
Penfield Block Co., Apple, Hickory and		Aiken's Genuine.	dis 40
Lignumvita.		Aiken's Imitation.	dis 40
MEAT CUTTERS.		Disston's.	dis 40
Dixon's (P. S. & W.). Nos. 1, 2, 3, 4.		Morrill's.	dis 40
Perry's.		SAWES.	
Each.		Hatch, Counter, No. 171.	dis 40
Woodruff's (P. S. & W.). Nos. 100, 150.		Hatch, Tea, No. 161.	dis 40
Hales'.		Union Platform, Keystone.	dis 40
Kieser's No. 55.		Chicago Scale Co.	dis 40
Kieser's Gem.		Fairbanks'.	dis 40
Kieser's No. 82.		Forsyth Scale Co.	dis 40
Kieser's Monarch.		Howe's.	dis 40
Beef Shaver, (Enterprise Manf. Co.).		Chattillon's Grocers'.	dis 40
MOLASSES GATES.		Chattillon's Eureka.	dis 40
Stebbins Patterns.		Family Universal.	dis 40
Stebbins Genuine.		Family Favorite.	dis 40
Stebbins Tinned Ends.		Family Turnbull.	dis 40
Chase's Hard Metal.		Scale Beams, List of Jan. 12, 1881.	dis 40
Self-Measuring, (Enterprise).		SCRAPERS.	
Lincoln's Pattern.		Adjust. Box Scraper (S. R. & L. Co.).	dis 40
Weed's.		Box, 1 Handle.	dis 40
Boss.		Box, 2 Handle.	dis 40
Boss, Japanned Finish.		Foot, common.	dis 40
Boss, Bronze Finish.		Wilson Mfg. Co.	dis 40
NUTS AND WASHERS.		SCREW DRIVERS.	
Square Nuts.		Douglas Mfg. Co.	dis 40
Hexagon Nuts.		Disston's.	dis 40
Washers.		Cowles Mfg. Co.	dis 40
Zinc and Tin.		Stanley Rule & Level Co.'s Var. Hds.	dis 40
Brass and Copper.		Stanley Rule & Level Co.'s Black Hds.	dis 40
Malleable (Hammer's).		Ratchet.	dis 40
Per dozen.		Clark's Patent.	dis 40
LIVING MACHINES.		Shepardson.	dis 40
Astor Plaiting Machine.		SCREWS.	
Crown Plaiting Machine.		Flat Head Iron, list Dec. 27, '81.	dis 40
PLANES AND PLANE IRONS.		Round Head Iron.	dis 40
Bench, First Quality.		Flat Head Brass.	dis 40
Bench, Second Quality.		Round Head Brass.	dis 40
Moulding.		Flat Head Blued, add 1/2% to net of invoice.	dis 40
Bailey's (Stanley R. & L. Co.) New list, Jan. 1879.		Japanned, list of Plain Screws.	dis 40
The Stanley (S. R. & L. Co.) new list, January 1879.		Coach, Patent Gimlet Point.	dis 40
Bailey's.		Coach, Common or Lag.	dis 40
Plane Irons, Butcher's.		Red.	dis 40
Plane Irons, Auburn Tool Co.		Machine, Flat Head, Iron.	dis 40
Plane Iron, Ohio Tool Co.		Machine, Round Head, Iron.	dis 40
Plane Irons, Sandusky Tool Co.		Bench, Iron.	dis 40
FLIES AND NIPPERS.		Bench, Wood, Beach.	dis 40
Button's Patent.		Bench, Wood, Hickory.	dis 40
Hall's Pat. Compound Lever Cutting Nippers.		Hand, Wood.	dis 40
No. 2, 5 in. \$1.50; No. 4, 7 in. \$2.00; No. 5, 9 in. \$2.50.		Hand Rail, Sargent's.	dis 40
Gas Pliers.		Hand Rail, Humason, Beckley & Co.'s.	dis 40
PLUMBS AND LEVELS.		Hand Rail, Am. Screw Co., list Jan. 1, '81.	dis 40
Disston's.		Jack (Wilson's).	dis 40
Stanley R. & L. Co.'s Pat. Adjustable.		SCREEN FRAMES AND FIXTURES.	
Stanley R. & L. Co.'s Non-Adjustable.		Standard Window Screens No. 1, 2, 3, 4, 5.	dis 40
Chapin's Patent Adjustable.		" " Window Corner Irons, No. 3, doz. st. \$2.	dis 40
Chapin's Non-adjustable.		" " Door.	dis 40
Standard Rule Co.'s New Adjustable.		" " Door Latches, 1/2 dozen, \$3.60.	dis 40
Standard Rule Co.'s Non-Adjustable.		Porter's Patent Window and Door Screen Frames.	
Pocket Levels.		PER DOZ. SETS.	
Sliding Door, Wrought Brass.		No. 20.	dis 40
Sliding Door, Bronze Wrt. Iron.		No. 21.	dis 40
Sliding Door, Iron, Painted.		No. 22.	dis 40
Barn Door.		No. 23.	dis 40
Per 100 feet.		No. 24.	dis 40
B. D. for N. E. Hangers—Small. Med. Large.		Porter's Corners—	
Per 100 feet.		No. 0. Corners and Sticks complete for a	
RIVETS.		three-foot window, 1/2 doz sets.	dis 40
Iron and Tinned, new list, Dec. 10, 1881.		No. 1. Set for Window, 1/2 doz sets.	dis 40
In bulk, new list, Dec. 10, 1881.		No. 1 1/2.	dis 40
Copper Rivets and Burrs.		No. 4.	dis 40
Nos. 7, 8, 9, 10, 11, 12, 13, 14, 15.		No. 1/2.	dis 40
1/2 lb. 49c. 50c. 52c. 54c. 56c. 58c. 60c. 62c. 70c.		No. 3/4.	dis 40
RIVET SETS.		No. 4 1/2.	dis 40
Stair, Brass.		No. 2 1/2.	dis 40
Stair, Black Walnut.		No. 3.	dis 40
RULES.		SHREWS AND SCISSORS.	
Boxwood.		American (Cast) Iron.	dis 40
Ivory.		Pruning.	dis 40
Chapin's.		Barnard's Lamp Trimmers.	dis 40
Standard.		Tinners'.	dis 40
Stanley.		Conn Shears.	dis 40
Stevens & Co.		Norfolk Shear Co.	dis 40
Stevens & Co. Miscellaneous.		Jersey Shears.	dis 40
SAD IRONS.		J. Wiss & Son, Nickle, 50c; Japanned, 60c; 55c.	dis 40
Self-Heating, Charcoal.		SHREWS.	
Mrs. Pott's Irons.		Sliding Door, M. W. & Co., List.	dis 40
Enterprise Star Irons, new list, July 20, '82.		Sliding Door, R. & E. list.	dis 40
Comb'd Fluter and Sad Iron.		Sliding Door, Patent Roller.	dis 40
Common Sad Irons.		Sliding Door, Pt. Roller, Hatfield's.	dis 40
SAND PAPER.		Sliding Door, Russell's Anti-Friction.	dis 40
Baeder & Adamson's Flint, 00/1 1/2.		Also see Hangers.	
Baeder & Adamson's Flint, 2, 2 1/2 & 3.		SHOVELS AND SPADES.	
Baeder & Adamson's Flint, Assort'd 4 7/8 r.m.		Ames, New List, July 1, 1887.	dis 40
Baeder & Adamson's Star.		Griffiths.	dis 40
Baeder & Adamson's Emery r.m. \$6.50 to \$11.50.		Remington's (Lowman's Patent).	dis 40
J. Hartle's Sand, Flint and Emery Paper.		Rowland's.	dis 40
SASH CORD.		Kimballs.	dis 40
Common.		Lippincott, new list.	dis 40
Patent.		Hussy, Bins & Co.	dis 40
Silver Braided Lake Hemp.		SPOKE TRIMMERS.	
Silver Braid, Lake White Cotton.		Bonney's.	dis 40
Silver Braided Lake Drab Cotton.		Stearns.	dis 40
Silver Lake Cable Laid, Bengall Unbleached		Ives'.	dis 40
Hemp, 17 cts.		Douglass'.	dis 40
Russian Hemp, 19 cts.		SILVER PLATED WARE.	
Italian Hemp, 34 cts.		Wm. Rogers Manf. Co.	dis 40
SASH WEIGHTS.		Holmes, Booth & Hayden.	dis 40
Solid Eyes, in 500-lb. lots and over, 1 1/2 c. net		Brown Bros.	dis 40
SAUSAGE STUFFERS OR PILLERS.		Wallace's Steel Silver Plated.	dis 40
Miles.		Rogers Bros 1847.	dis 40
Perry.		C. Rogers & Bro.	dis 40

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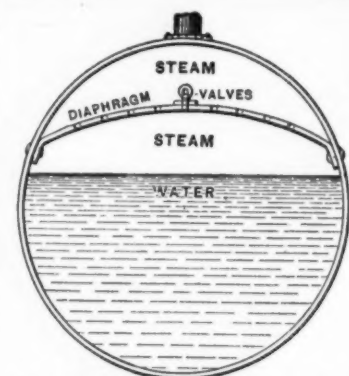
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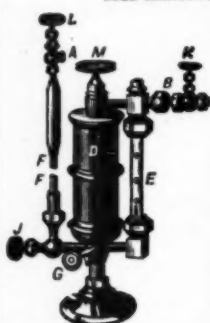
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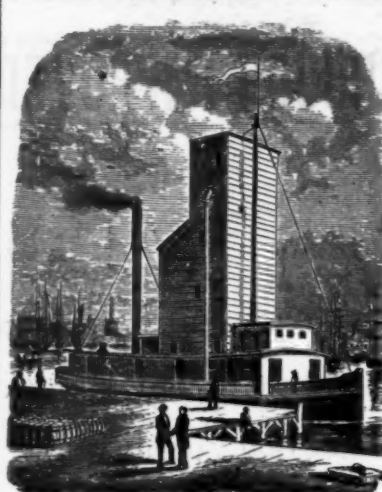
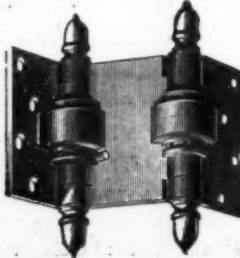
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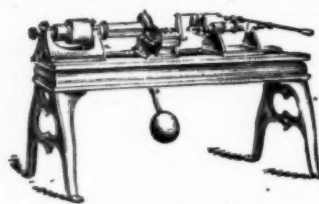
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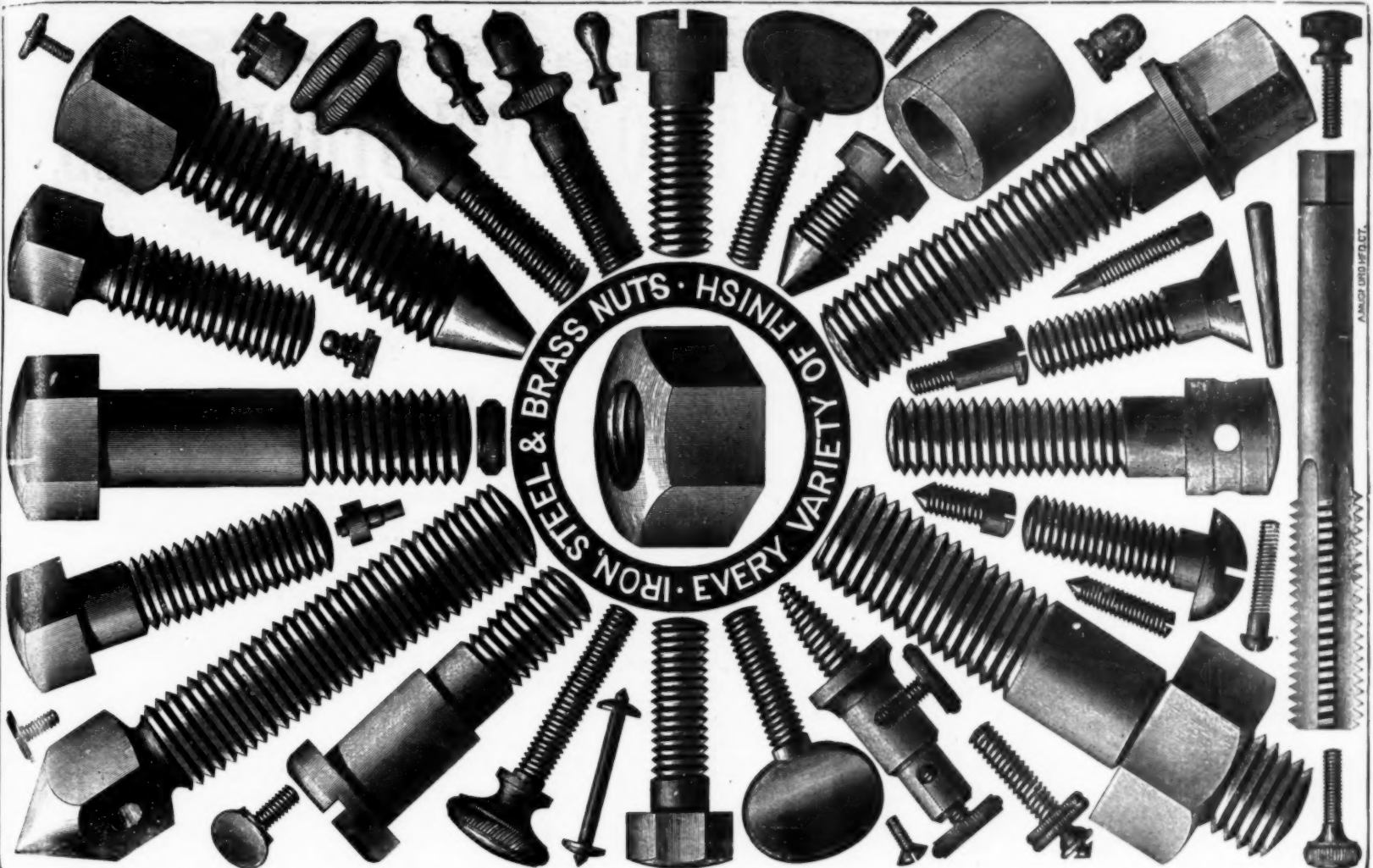
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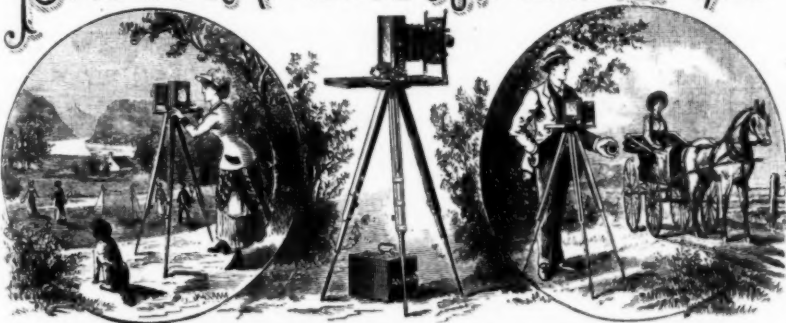
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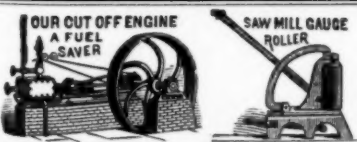
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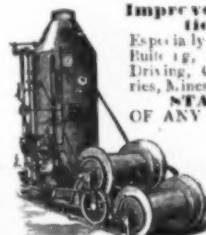
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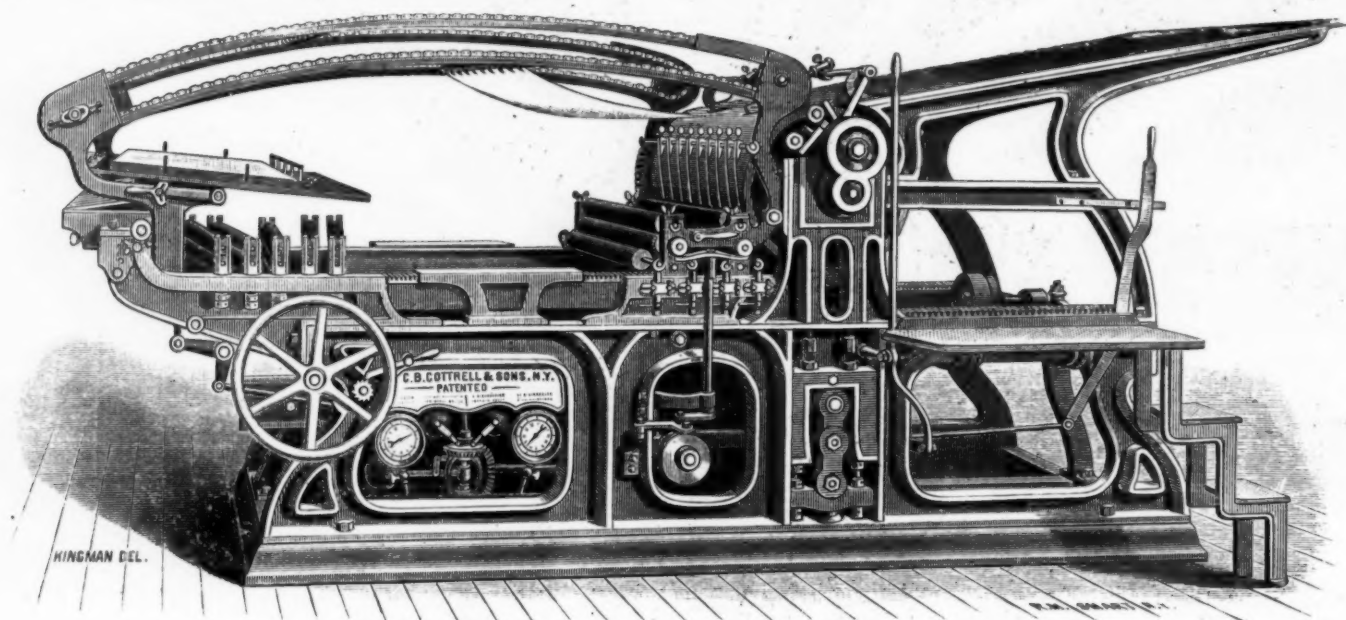
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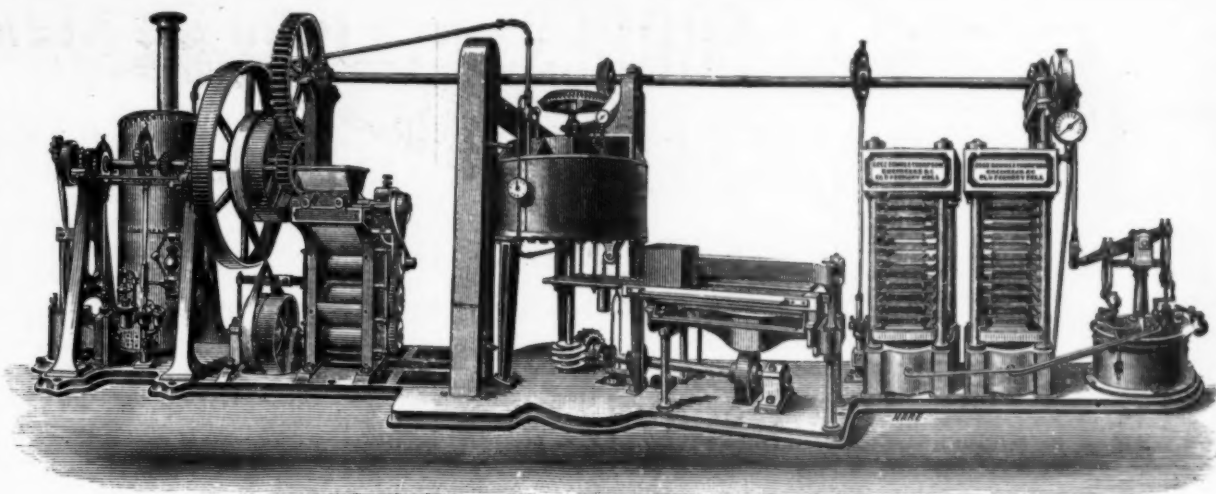
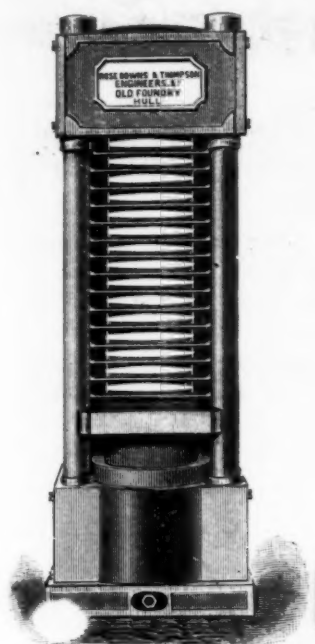
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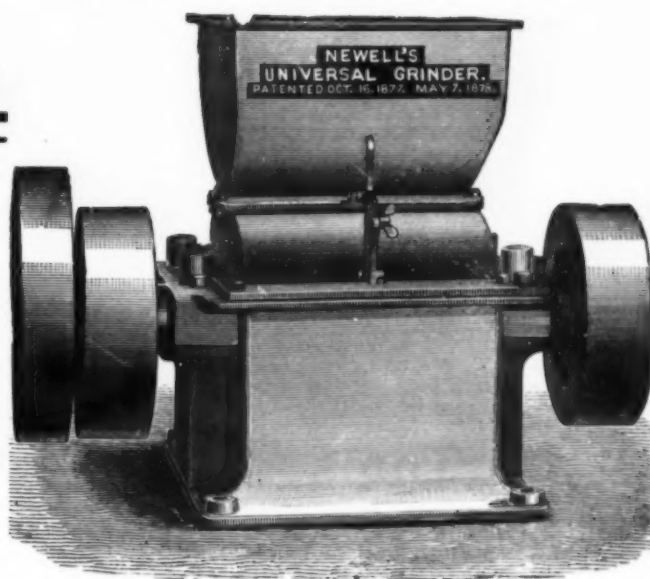
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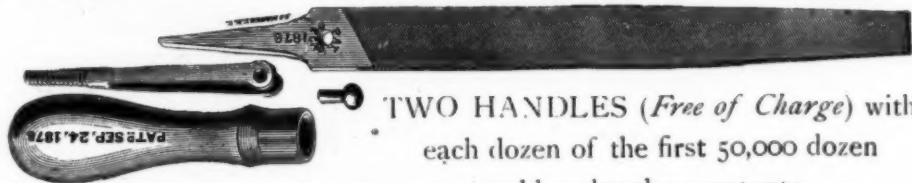
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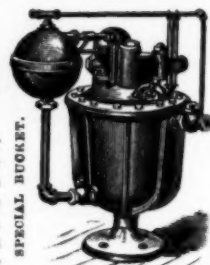
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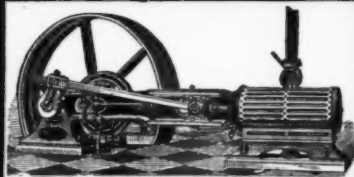
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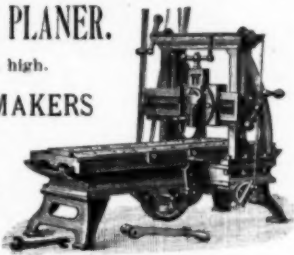
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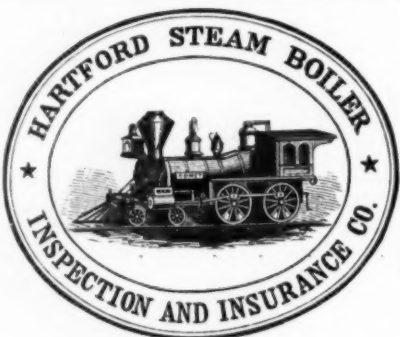
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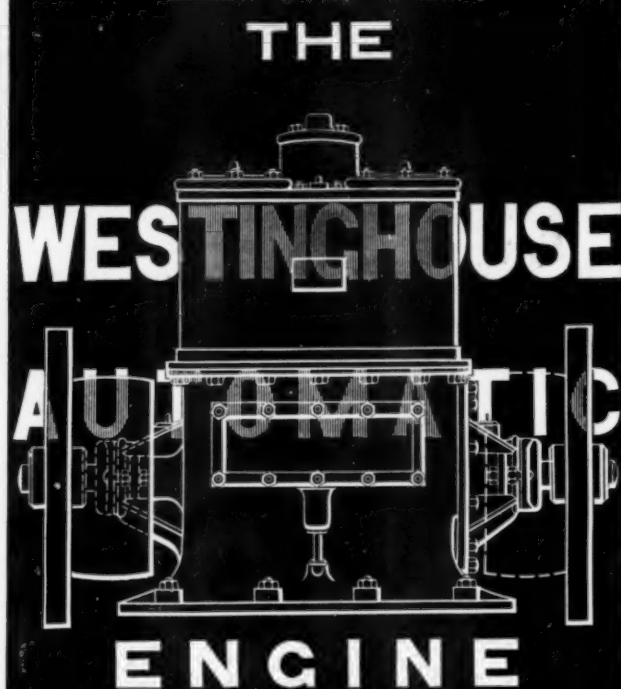
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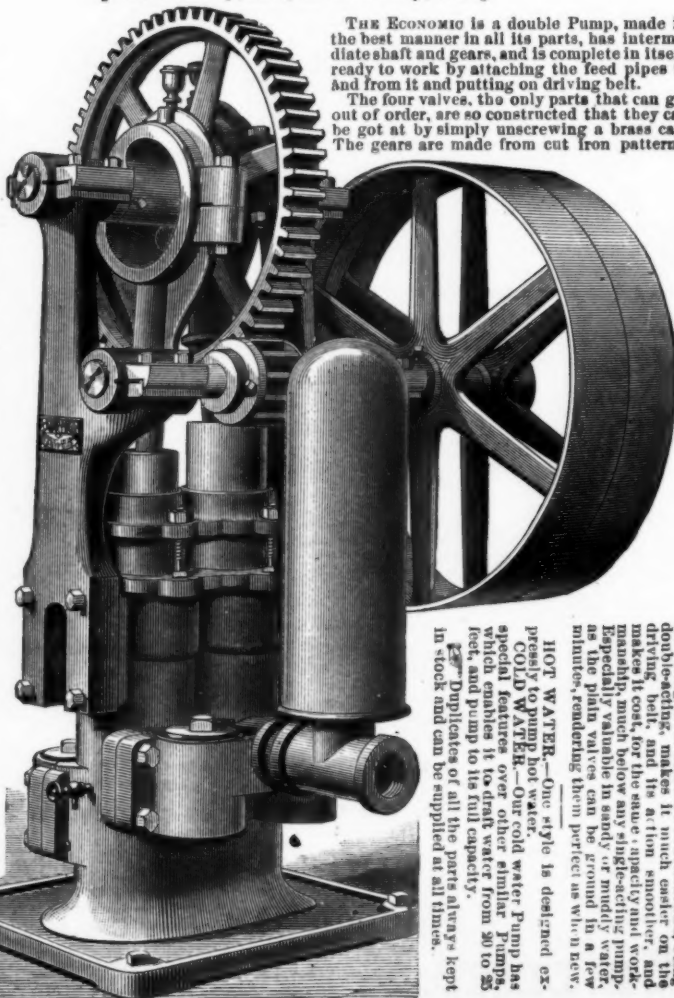
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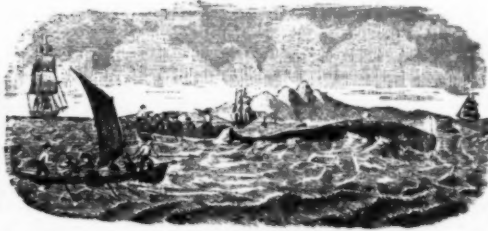
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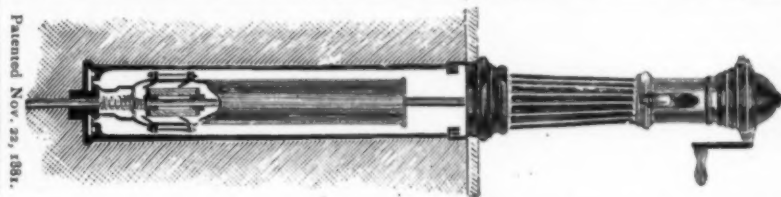
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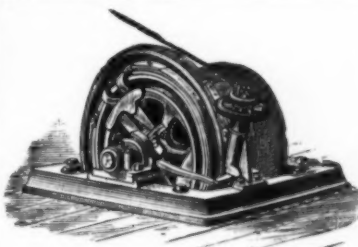
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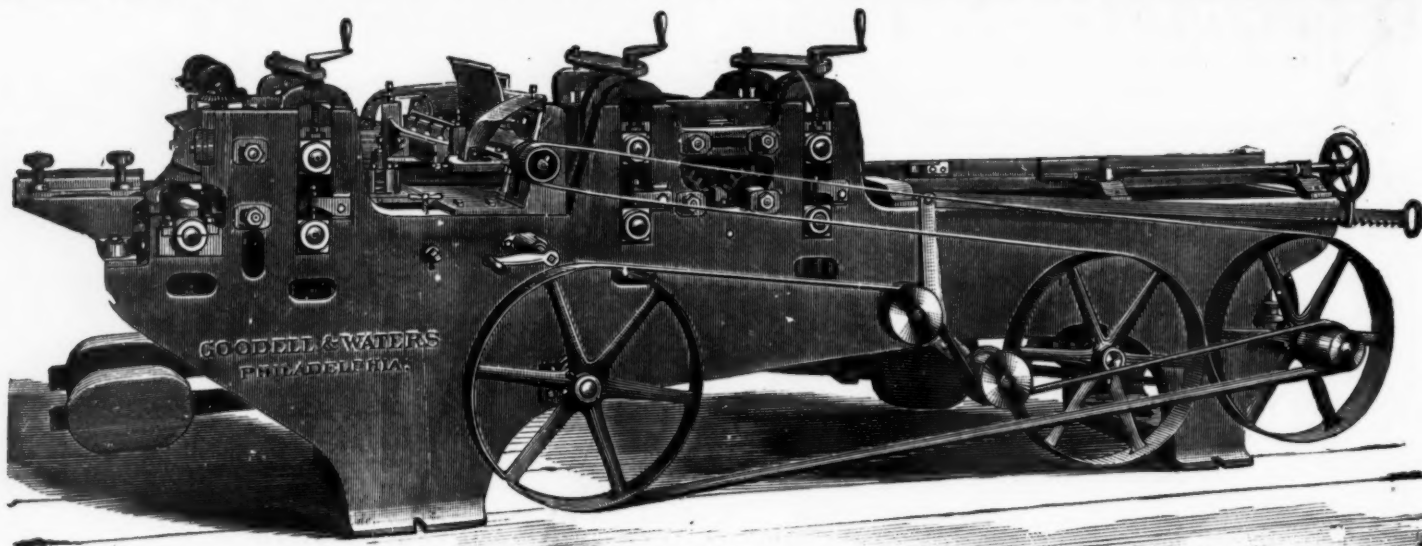
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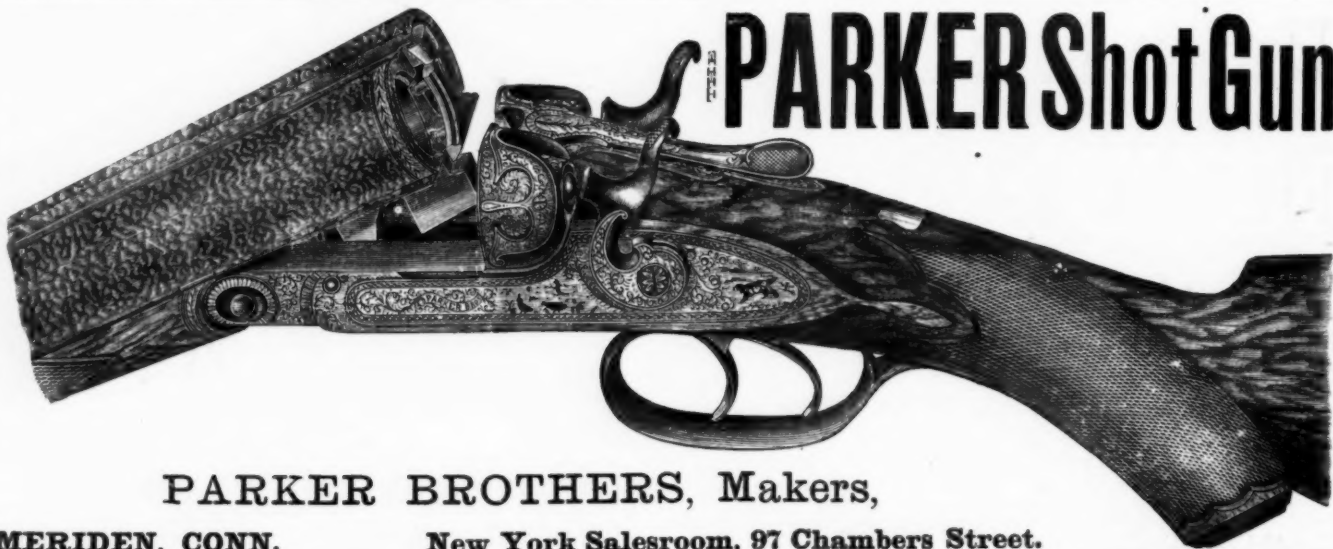
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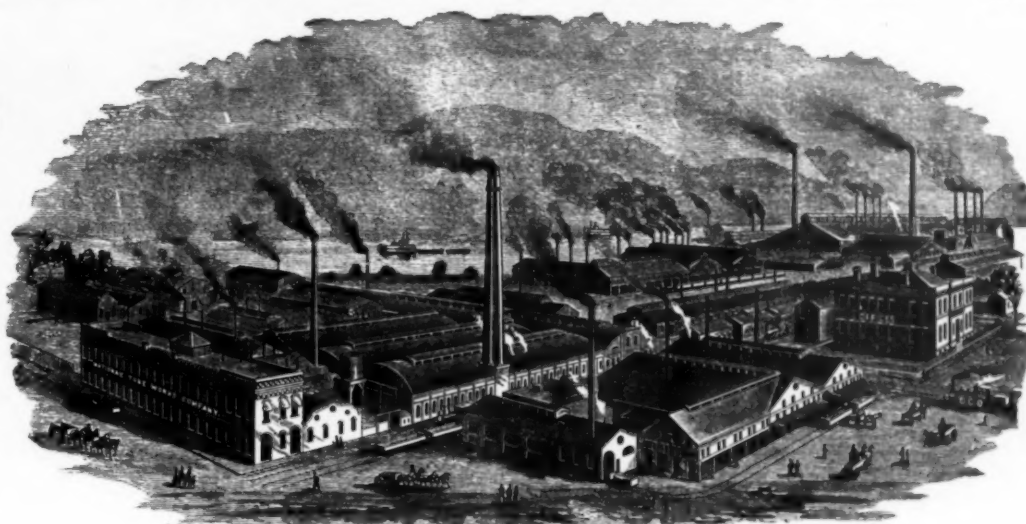
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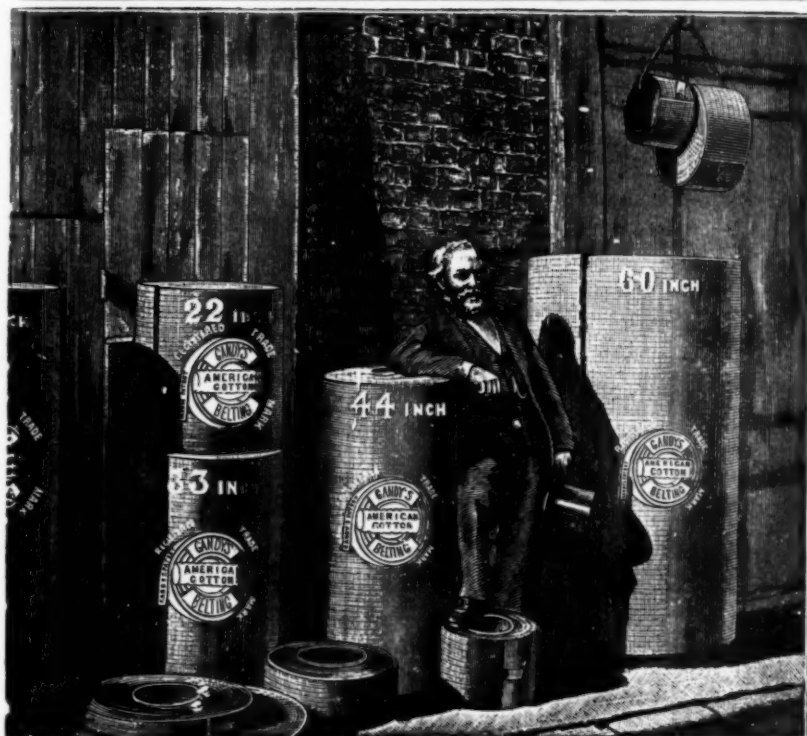
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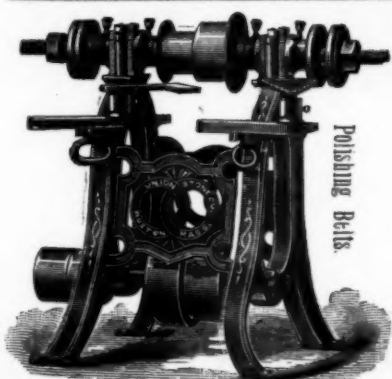
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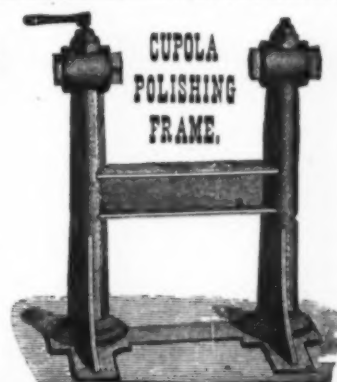
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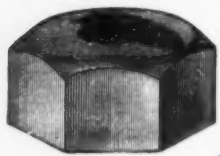
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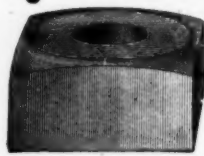
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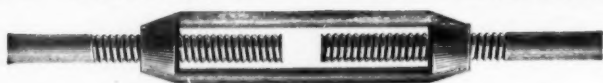
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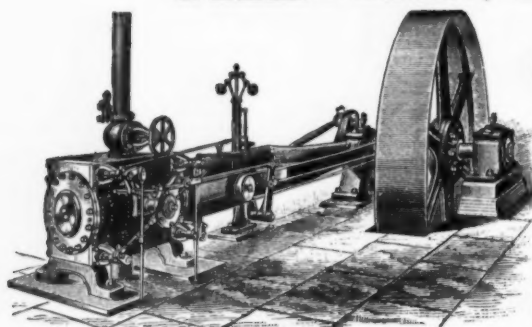
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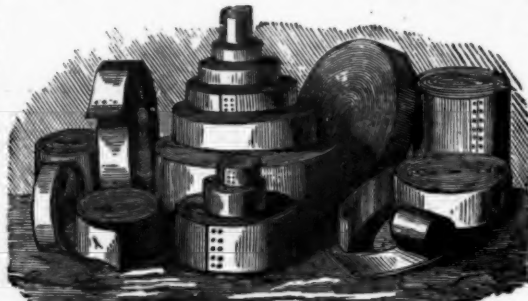


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